A COMPARATIVE STUDY OF ENGLISH AND OROMO SEGMENTAL PHONEMES WITH ITS IMPLICATIONS FOR TEACHING ENGLISH AS A FOREIGN LANGUAGE

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by

Italo Beriso

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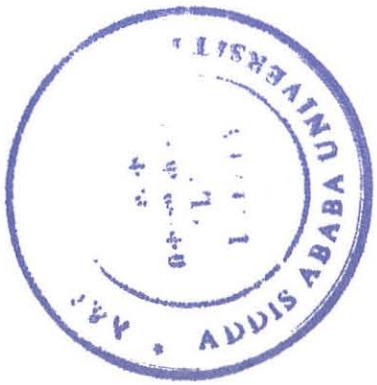

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A COMPARATIVE STUDY OF ENGLISH AND OROMO SEGMENTAL PHONEMES WITH ITS IMPLICATIONS FOR TEACHING ENGLISH AS A FOREIGN LANGUAGE

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ABSTRACT

The main objective of this study was to find out the difficulties Oromo learners of English may have in pronouncing certain English sounds.

According to Contrastive Analysis (CA) hypothesis, in learning the pronunciation of a second language we tend to pronounce the foreign sounds according to the phonological system of our mother tongue, which means that we replace them by the nearest sounds in our native language. This is so because, in listening to the target language we hear the foreign sounds as if they were native sounds.

CA claims that a second language learner may find his target language difficult or relatively easy. In the realm of phonology the difficulty of a second language depends both on the sounds themselves and on their ability to combine.

To verify this claim of CA empirically, 62 native speakers of Oromo were given two tests: discrimination and production tests. The discrimination test was aimed at finding out the difficulties these subjects may have in discriminating between English sounds in minimal pairs. The objective of the production test was to find out whether the subjects could produce the sounds which they discriminated or otherwise.

The results of this study reveal that the subjects were found to be better in discrimination than in production. Most

of the sounds that caused problems for the subjects were categories that are non-existent in Oromo such as /θ, ð, ŋ, æ/, diphthongs and consonant clusters. In some cases, sounds which were easily discriminated and produced in the initial positions were found to be troublesome in final positions.

In general, areas of differences between the phonemic systems of the two languages caused greater difficulties for the subjects.

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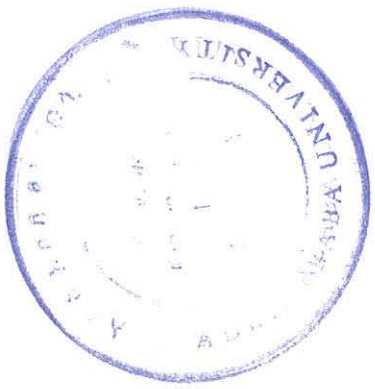


CHAPTER ONE

1. Introduction

1.1 Statement of the Problem

Contrastive linguistics claims that in learning the pronunciation of a second language we tend to pronounce the foreign sounds according to the phonological system of our mother tongue, which means that we replace them by the nearest sounds in our mother tongue. This is because, in listening to the target language, we hear the foreign sounds as if they were native sounds, i.e. we hear only those components of the foreign sounds that are identical with the sounds of our source language.

Moreover, contrastive linguistics asserts that the chance of L_2 learning problems occurring will increase proportionally to the linguistic difference between L_1 and L_2: linguistic differences give rise to interference. On the other hand, the chance of L_2 learning problems occurring decreases proportionally to the absence of linguistic differences between L_1 and L_2: absence of linguistic differences gives rise to facilitation. In line with this, Mackey wrote:

> The similarities and differences between two languages may be in phonology, grammar, vocabulary, stylistics or graphics. In the realm of phonology, the difficulty of a second language depends both on the sounds themselves and on their ability to combine (*Mackey 1965: 109*).

Understanding of phonemic distinctions becomes most important at those points where the phonemic systems of the native language and the foreign language do not coincide. Students listening to a foreign language in the early stages will 'hear' the phonemes of their own language, that is, they will automatically classify new sounds as variants of familiar native language phonemes.

In the words of W. Rivers, "Students in whose language the distinction between /ü/ and /u/ does not determine differences of meaning will not at first notice this distinction" (*W. Rivers 1968: 116*).

The inability to distinguish between phonemes also shows up in written work where it is easy to confuse it with spelling or even grammatical errors. The cure for the pupil who writes "leaving" for "living" is not only to explain the difference of meaning, but also to improve his pronunciation, which may prevent him from writing beaten for bitten or sitted for seated. The pupil who pronounces run and ran in the same way may also appear to be in grammatical difficulties, whereas the trouble is phonetic.

When we list diphthongs and consonants, we shall find numerous other problems and begin to understand why, for example, certain speakers have difficulty with /s/ and /$\overset{v}{s}$/, /r/ and /ℓ/ or /p/ and /f/. According to Bright and McGregor,

> One African tribe at least has difficulty in hearing any difference between "ugly"

and "angry" because:
1) they equate [ʌ] and [æ]
2) they equate [l] and [r]
3) and in their vernacular no nasal ever precedes a voiced stop so that they do not hear [n] before [g]. This leads to an inability to hear any difference between under and udder or widow and window (*Bright and McGregor 1978: 180*).

It is confusing if a speaker does not make any distinction between sounds which change meaning; for example, if a speaker pronounces man and men in the same way the result is most likely confusion. Thus, it is necessary at first to make sure that these basic sounds of the language are properly pronounced by the learner of English.

As English and Oromo are two independent and unrelated languages, English and Oromo phonemic systems are different. Therefore, certain English phonemes are hard nuts to crack for Oromo learners of English.

Hence, this study attempts to reveal the difficulties encountered by Oromo learners of English in pronouncing certain English segmental phonemes.

1.2 Aim of the Study

"In teaching the pronunciation of any language the first thing to do is to draw up an inventory of the phonemes of that language" (*Carl James 1980: 74*). Phonemes operate to distinguish one word from another. Thus, in English, the initial consonants of the words bin - din - kin - pin - sin - tin - win form a series of phonemes. In the same way, the vowels in the words been - bin - ban - barn - born - bone -

bane form a series of vowel phonemes. The importance of establishing the phonemes when teaching the pronunciation of a language is that the learner must be able to distinguish one phoneme from another if he is to achieve any reliable degree of intelligibility at all. It is far more important that he should make a clear distinction between the sounds of the different phonemes. Once he has got the difference between phonemes clear, one can, if one likes and has the time, shape the sounds to a more English quality. Until he has got the phoneme distinctions clear he — and his hearers — are in perpetual danger of losing intelligibility.

The problem of making distinctions between phonemes is so because, in listening to the target language, we hear the foreign sounds, i.e. we hear only those components of the foreign sounds that are identical with the sounds of our source language.

By the same token, Oromo-speaking learners of English may have difficulties in the pronunciation of certain English phonemes. Therefore, this study attempts to

1. make a comparative study of segmental phonemes of English and Oromo, and
2. classify the pronunciation errors according to their types — phonemic, phonetic, allophonic and distributional.

1.3 Significance of the Study

There are many reasons why English is taught in nearly every country in the world. English has become the most widely spread of the very few languages that can qualify as truly international is a fact that we have to live with — and take advantage of — since English has to be taught as such: to speak of English as a Language of International Communication (ELIC) means that we no longer speak only of the nature of the language, but of its function as well. As Gerard G. Hardin (1979: 4) states, "English has become the language of international communication because it is the language of dominant economic and political power."

Although English is the third or fourth language for many Ethiopians, it is taught for practical uses of communication; it serves as the language of instruction in secondary and higher education and as a necessary link with resources beyond the country's boundaries. In the words of Bender,

> English has a negligible number of native speakers in Ethiopia, but at the present it has a crucial position in education, commerce, government and international communication, and from this point of view it can be regarded as a major Ethiopian language (*Bender et al. 1976: 12*).

On the other hand, like many other African countries, Ethiopia is a multilingual country. Of these Ethiopian languages, some are so important for the day-to-day activities of the people. To again quote Bender,

> Ethiopia has four or five languages which are so important in the life of the nation either by the number of their native speakers or the range of their use as a second language that may be called the 'major languages' of the country (Galla, Tigrigna, English, Somali) (*ibid.*).

As mentioned above, Oromo is one of the major languages of Ethiopia. It is widely spoken in the western and southern administrative regions. In this regard Bender wrote: "From a broader perspective, among the Afro-Asiatic languages Oromo and Amharic are among the four most important numerically (after Arabic and Hausa)" (*ibid.*).

Similarly, The Stateman's Year-Book (123rd ed. 1986/87, p. 450) has the following to say about the Oromos:"The Oromos, some who are Christian, some Muslim, some Pagan, comprise about 40% of the entire population and are a pastoral and agricultural people of Hamitic origin."

Therefore, understanding the problems faced by Ethiopian learners of English in general and those of Oromo learners of English in particular is of paramount importance. To this effect, this study may

1. help to understand the difficulties Oromo learners of English have in the pronunciation of certain English phonemes;
2. help to make some pedagogic recommendations as regards teaching English as a foreign language to Oromo learners of English; and
3. serve as a preliminary work for further investigation in this area of study.

1.4 Scope of the Study

This study deals only with the segmental phonemes of English and Oromo. It endeavours to find out the difficulties Oromo learners of English may have in pronouncing English phonemes and their variants by comparing the phonemic systems of the two languages.

1.5 Definitions of Terms and Symbols

Oromo = The Oromo language and its native speaker.

~~Galla~~ = The name used by non-Oromos to refer to members of Oromo nationality.

Phoneme = The smallest contrastive unit that may bring about a change of meaning (*Bright and McGregor 1978:179*).

Allophone = Variant of a phoneme (*D.A. Wilkins 1978: 48*).

Diphthong = A glide from one vowel to another (*J.D. O'connor 1976: 107*).

Closed syllable = A syllable ending in a consonant sound.

Open syllable = A syllable ending in a vowel sound.

[ ] = phonetic notation

/ / = phonemic notation

: = denotes vowel length

[ˌ] = dental

[ₒ] = voiceless

Double consonants = denotes gemination

. Vowel length is phonemic and so is gemination in Oromo.

CHAPTER TWO

2. Review of Related Literature

2.1 English Pronunciation

"Pronunciation is the use of a sound system in speaking and listening" (*R. Lado 1964: 70*). Similarly, P. Strevens defines pronunciation as

> The sector of language where the organization of syntax and semantics, having first been generated in the brain as a series of solely mental process — silent, instantaneous, electrical and chemical — is converted into motor activity, which in turn produces acoustic effect, i.e. audible sounds (*Peter Strevens 1977: 81*).

Written English and spoken English are obviously very different things. Writing consists of marks on paper which make no noise and are taken in by the eye, whilst speaking is organized sound, taken in by the ear.

The main problem of English pronunciation is to build a new set of boxes corresponding to the sounds of English, and to break down the arrangement of boxes which the habits of our native language has so strongly built up. We do this by establishing new ways of hearing, new ways of using our speech organs, new speech habits. In line with this, O'Connor wrote:

> Unfortunately, it is never easy to establish good habits, it is always the bad habits which come most naturally, and you will need to do a great deal of hard work if you want to build yourself a set of English boxes which are nearly as firm as those of your own language (*O'Connor 1976:3*).

Many educators' worry is which English to teach. There are many different kinds of English as there are speakers of it; no two people speak exactly alike — one can always hear differences between them — and the pronunciation of English varies a great deal in different geographical areas. How do we decide what sort of English to use as a model? This is not a question which can be decided in the same way for all foreign learners of English. In this regard, O'Connor says, "It would be a mistake in these circumstances to use as a model B.B.C. English or anything of the sort " (*ibid.*: 7).

On the other hand, if one lives in an area where there is no traditional use of English and no body of people who speak it for general communication purposes, then one must take as his model some form of native English pronunciation, and which form one chooses does not very much matter. The most sensible thing to do is to take as one's model the sort of English which one can hear most often.

Phonemes are the basic elements used in a pronunciation of words. *The 44* phonemes of English are the basic contrasts which make it possible for us to keep word or longer utterance separate from every other, /*ʃi:l*/ from /*ʧil*/ and /*pɪə*/ from /*bɪə*/, etc. But each phoneme may be represented by different sounds in different positions, so the different *t*-sounds in *tea* and *two* both represent the /*t*/ phoneme and the three *h*-sounds in *he, hat, who* all represent the single /*h*/ phoneme.

This suggests two stages in the learning of pronunciation: the first is to be able to produce 44 vowels and consonants which are different, so that the words and longer utterances of English do not at any rate sound the same, so that /ʃi:l/ and /ʃil/ sound different. At this stage the learner will not worry about which of the possible *h*-sounds he is using; any of them will serve to distinguish *heat* /hi:t/ from *eat* /i:t/. But obviously if the learner uses a particular sound in a word where an English speaker uses a different sound belonging to the same phoneme, the effect will be odd; he will not be misunderstood — that could only happen if he used a sound belonging to a different phoneme — but he will not be performing in an English way, and if this happens with many of the phonemes it will contribute a foreign accent.

So the second stage in learning pronunciation must be to learn to use as many different sounds as is necessary to represent a particular phoneme. In theory a single phoneme is represented by a different sound in every different position in which it occurs, but most of these differences will be made automatically by the learner. It is only in cases where this is unlikely to happen that it will be necessary to worry about particular sounds within a phoneme.

There is one other relation between sound and phoneme which *Mackey* (1965) notes to give trouble. Here is an example: in English /d/ and /ð/ are different phonemes; in

Spanish there are sounds which are similar to those used in English to represent these phonemes — we can write them *d* and *ð*; but in Spanish these two sounds belong to the same phoneme — when the phoneme occurs between vowels it is represented by *ð*, as in *naða*, 'nothing', but when it occurs in initial position it is represented by *d*, as in *dos*, 'two'. This will cause difficulty for the Spanish speaker because although he has more or less the same sounds as in English he is not able to use them independently and whenever an English /*d*/ occurs between vowels he will be in danger of using /*ð*/, and confusing *breeding* /bri:din/ with *breathing* /bri:ðin/ and whenever English /*ð*/ occurs in initial position he will be in danger of using /*d*/, and confusing *they* /ðei/ and *day* /dei/. In general, if two sounds belong to one phoneme in one's language, but to two different phonemes in English there will be danger of confusions until one has learnt to forget the habits of one's language and use the sounds independently as in English. According to O'Connor, "This can be done by careful listening and accurate use of the speech organs and a great deal of practice" (*ibid.*:14).

On the other hand, in an English phonemic alphabet we include [b] and [p] to represent all the occurrences of sounds recognized by English speakers as [b] and [p]. This does not mean that all pronunciations of [p] are the same. They are not. In the word *pit* the initial sound is aspirated, that is followed by a release of air. In the word

spit, it is not. But in English the difference between aspirated *p* and non-aspirated *p* makes no difference to meaning. If it did, we should need two symbols. If we do need to refer to different pronunciations of [p] in different phonetic contexts, we can call them the allophones of [p]. Even the native speaker without phonetic training finds allophones difficult to hear because all our experience in understanding English has taught us to ignore them and attend only to the phonemic differences. One of the easiest differences to spot is that between the two allophones of [l] in little. Bright and McGregor say, "To an English ear many foreign speakers who do not make this distinction appear to say /leetil/" (*Bright and McGregor 1978:179*).

Two languages may differ considerably in the combinations they permit; this may be a great source of difficulty in learning to pronounce a second language. For example, English, French and Russian have the sounds /ɬ/, /ś/, /y/, but the English or French learner of Russian has difficulty in combining them into Russian words.

Not only the combinations themselves are different, but also are the positions in which they occur. There is, for example, a big difference in English in the number of combinations permitted before stressed vowels and the number allowed after them; there is also in Russian. But those permitted before the vowel in Russian are not the same

as those permitted before the vowel in English; so that it is easy for an English speaker to end a word in /-ts/, as in the word cats, but harder for him to begin a word with /ts-/, as he will need to, if he happens to be learning Russian. For the same reason,

> Spanish learners of English will pronounce the word *steak* as /estek/ and *drugstore* as /drʌgestor/; for although Spanish has the combination /-st/ after a stressed vowel it does not have it before one, and never begins a word with /st-/ (*Mackey 1965: 84*).

Combinations of sounds can present difficulties. In every language there are restrictions on groups of consonants that occur at the beginning of a word, 'initial clusters', and those that occur at the end of a word, 'final clusters'. As *J. Kenworthy (1987: 76)* writes, "The restrictions are of two types: (1) restrictions on number; (2) restrictions on which consonants can occur and in what order." For example, in English there are initial clusters of two or three, and no more (place/split). In clusters of three 's' is always the first, so '*plsit*' is not a possible English word. Some languages have a restriction in number of 'one', i.e. no clusters are permitted either in initial or final position or both.

If the learner's native language has, say, two as its upper limit in initial consonant clusters, then pronouncing English three-term clusters may cause problems. In the words of *J. Kenworthy*, "And even if the learner's language does have three-term initial clusters, if the learner is not used to

producing particular consonants in a particular order, this may lead to problems" (*ibid.*: 77).

2.2 Oromo and its Phonemes

The Oromo language in Ethiopia has many divisions, though it is not clear just how far these divisions really represent differences in speech and how much they are simply geographical. *Bender et al.* (1976) assume that there are at least five dialects of Oromo: Mecha (western), Tulema (central), Wollo, Raya (northern), eastern and southern.

The question can fairly be asked as to whether the Oromo of Ethiopia is really one language with well-marked dialect differences, or several languages. Most observers (e.g. *Andrzejewski 1960*) report that Gallas from one area may have difficulty in adjusting to the dialect of a different area, but that the adjustment does take place, requiring a few weeks or at most a few months.

Similarly, Bender has the following to say, "But on the grounds of mutual intelligibility and basic vocabulary, it seems fair to maintain that Ethiopian Galla is one language" (*Bender et al. 1976: 130*).

On the other hand, *Language in Ethiopia* by M.L. Bender et al. (1976) gives a good account of Oromo from a general point of view. In the phonology section it gives five basic vowels. These vowels (*i,e,a,o,u*) may occur short or long; the long vowels are indicated by *i:, e:, a:, o:, u:*.

Barissa /bʌri:sa:/, the Oromo weekly, (1968 E.C.) gives similar number of vowels in Oromo. When we consider these in terms of being short and long, we get a total of ten vowels.

The consonants of Oromo are very largely those of the Ethiopian-area languages: /p', b, m, f, t, t', r, l, d, D, s, n, č, č', j, ñ, š, k, k', g, h, ?, w, y/. The ejective series occur except for /s'/, and also the alveolar dental stop /D/ found in Cushitic and Omotic languages but not in Semitic. The voiced /z/ does not occur except in loan words.

The glottal stop /?/ is found in Mecha dialect but tends to disappear in Tulema, resulting in a lengthening of the following vowel or consonant.

Example:

Mecha :	?aru	*'to get angry'*
Tulema:	a:ru	"
Mecha :	har?a	*'today'*
Tulema:	harra	"

As to consonant clusters, group of three consonants are broken up by the introduction of a vowel /i/.

Example: erg-i-na *'we send'* (from erg+na) (*ibid.*: 132).

Another important book in which a mention of Oromo phonology is made is *The Non-Semitic Languages of Ethiopia*, edited by *L.M. Bender*. The book in its chapter, *Oromo of Wollega*, by *Gene Gragg* (p. 174), in the phonology section, through charts, deals with the consonant and vowel sounds, suprasegmentals and morphophonemics. Long vowels are repre-

sented by the doubling of the particular vowel so that, for example, the short *a* in *Daba* 'lack' is distinguished from the long *aa* in *Daaba* 'plant'.

Another book worth mentioning is P. Battista Cavaliera's *Grammatica della Lingua Oromo* (1939). This book which is written in Italian, starts with a description of the Oromo sounds and states that Oromo sounds are not different from Italian in most cases. For example, the *D* sound, which is an important phoneme in Oromo is said to be the same as the *D* sound in Sicilian dialect [*the source as quoted by Dejene Leta* (1980: 12)].

2.3 Literature on the Theories of Contrastive Analysis (CA)

2.3.1 Traditional Applications of CA

Contrastive analysis is a branch of linguistics which tries to discover similarities and differences between two languages by contrasting systematically the different structures of the languages in question.

Contrastive linguistics claims that a second language learner encounters various problems when he learns the target language. This is so because his native tongue habits which are deeply rooted come in the way when an individual strives to learn L_2. Thus, he tends to transfer his language habits onto the target language. In support of this view R. Lado states:

> Transfer is the extension of a native language habit into the target language with or without the awareness of the learner. When the transferred habit is acceptable in target language, we have facilitation. When the transferred habit is unacceptable in the target language we have interference and an extra learning burden is assumed (R. *Lado 1964: 272*)

To this effect, an individual learner faces difficulties in the use of certain phonemes and their variants that may only exist in the target language. As R. Lado explains,

> Experience shows that when the foreign language learner uses a phoneme which does not exist in the learner's native language, that is, when there is no phoneme in the native language that could be transferred to the foreign language and actually function as the phoneme in question, the student will not be able to produce that phoneme readily in learning the foreign language. He will substitute some other phoneme from his native stock. Experience and experiments also show that the learner will have trouble learning as well as producing the new phoneme (R. *Lado 1957: 13*).

Contrastive linguistics, moreover, claims that many of the difficulties in learning L_2 are due to the fact that L_2 differs from L_1. Therefore, understanding the area of differences between L_1 and L_2 would facilitate the teaching and learning of L_2 for it brings forth the problematic sounds which in turn help pinpoint the errors that are likely to result owing to interference. In this regard Mackey writes:

> Differential description is of particular interest to language teaching because many of the difficulties in learning a second language are due to the fact that it differs from the first. So that if we subtract the characteristics of the first language from those of the second, what presumably remains is a list of the learner's difficulties (*Mackey 1965: 80*).

Furthermore, CA can be useful for preparing teaching materials. In the words of Charles C. Fries in his book, Teaching and Learning English as a Foreign Language, "The most effective materials are those that are based on scientific description of the language to be learnt carefully compared with a parallel description of the native language of the learner" (*Charles Fries 1945: 9*).

In line with this, a number of fundamental and applied objectives have traditionally been attributed to CA,

1. Providing insights into similarities and differences between languages;
2. explaining and predicting problems in L_2 learning;
3. developing course material for language teaching

(Theo Van Els et al. 1984: 46).

In support of these objectives of CA, R.Lado argued,

> The key to degrees of difficulty lies in the comparison between the native and the foreign language. Since an individual tends to

> transfer the features of his native language to the foreign language, a comparative study will be useful in identifying the likenesses and differences between the languages and thus enable the linguist to predict areas of difficulty for the second language learner (*H.H. Stern 1986: 159*).

From these objectives of CA it can be inferred that CA differs from other approaches (*e.g. error analysis*) in so far that it does not actually take the L_2 learner into account. It is based on the similarities and differences that exist between two or more languages, at the same time taking into account a number of axioms about L_2 learning behaviour.

As to various hypotheses put forward by linguists regarding CA, Lulseged Erkihun (*1981: 7*) summarizes as follows:

1. that a new phoneme in L_2 constitutes a difficulty for the native language speakers;
2. that learning a completely new phoneme is much easier than learning one which is partially in a similar class in the target language;
3. that all new phonemes are not equally difficult to learn since some may be more difficult than others because of differences in articulation at the phonetic level of production and perception;
4. that a new phonetic difference between the native and the target language is sometimes more difficult than phonemic differences;

5. that differences in allophonic variations of the corresponding phonemes, and differences in the distributional variants may result in wrong perception of the same phonemes through confusion with others, as well as wrong pronunciation.

2.3.2 Previous Works

In the 1960s, there were quite a few papers written which claimed to be able to predict errors in the pronunciation of second language learners on the basis of a CA of the phonologies of the NL and TL. All learner errors in pronunciation were felt to originate from negative transfer — that is, the learner's attempt to use inappropriate sound patterns of the NL in place of the sound patterns of the TL.

Elaine E. Tarone in his article, The Phonology of Interlanguage in Understanding second and Foreign Language Learning, (ed. by Jack C. Richards 1978: 16-20) summarizes some of the experimental studies carried out to find out pronunciation problems faced by L_2 learners as follows:

Briere's results showed in 1966 that CA, as it was commonly being used to predict pronunciation problems for L_2 learners, was not completely successful in its predictions of learner performance on an experimental task.

Other experimental studies using isolated words and syllables examined the perception of speech sounds by speakers of several languages. Carroll and Sapon (1957-1958), Lotz (1960) and Scholes (1969) had results indicating that negative transfer from the NL was influencing subjects' performance on experimental perception tasks, while Stevens (1969) and Singh and Black (1966) concluded that the subjects' perception of some TL features operated independently of their first language background.

Johansson (1973) reports on a very extensive study which analyzes the segmental interlanguage phonologies of 180 native speakers of nine different languages, who were asked to report Swedish (TL) words and sentences which they heard on tape.

The researcher concludes from her study that 'a large number of the substitutions made could have been predicted by CA'; however, she also concludes that there were some general common directions for substitution followed by all language groups.

Her study reveals that it is not enough to predict that differences between two phonological systems will automatically create learning problems in exact proportion to the degree of difference between them. In some cases, NL and TL sounds which seemed to be very different presented no learning problem.

Johansson's data suggest that one of the constraints involved in shaping the relative difficulty of the learning of new L_2 sounds may have to do with the intrinsic difficulty of those L_2 sounds, an effect operating independent of the process of negative transfer, but interacting with it.

Wode (1976) finds evidence that some phonological elements are strongly affected by negative transfer from the NL, while other elements seem to be acquired with no influence from the NL, but rather in the same way that a child would acquire them in a L_1 phonology.

Based on the theories of CA, a number of contrastive studies, at phonological level, have been carried out between English and many languages of the world. These studies have revealed that where there are differences between the native language and English, foreign learners of English encounter difficulties in pronouncing phonemes which are non-existent in the native language. In these studies, phonemes of L_1 and English are compared to predict the errors that are likely to crop up in the process of learning English as a second or foreign language.

It is, therefore, worthwhile to take some of these studies and see the difficulties as indicated by researchers.

2.3.2.1 Arabic Vis-a-vis English

As Arabic is different from English, certain categories (Phonemes) which are found in English may be absent in Arabic. These absent categories may trouble Arabic-speaking learners of English. To this effect, O'Connor in his book, Better English Pronunciation, presents the following:

In Arabic /ɸ/ and /v/ may be confused, /ɸ/ being used for both, but /v/ may occur in Arabic in borrowed names.

/θ/ and /ð/ do not occur in Arabic and are replaced by /s/ and /z/ respectively.

/p/ and /b/ are confused, /b/ being used for both. /t/ and /d/ are dental stops in Arabic. Stops are not generally exploded in the final position in Arabic and the strong stops are often unaspirated.

As regards vowels, in Arabic /i/ and /e/ are confused, /e/ being used for both. /æ/ and /a:/ are not entirely independent in Arabic and there is danger of replacing one by the other in some places. /ʌ/ and /ɔ/ are confused, an intermediate vowel being used for both. /ei/ is replaced by the usually non-diphthongal vowel /e:/ as in *be:t* 'house'. /əu/ is replaced by the non-diphthongal vowel in Arabic as in *mo:z* 'bananas', and this may cause confusion with English /ɜ: /. /iə, ɛə, uə/ are replaced by the nearest vowel sound /i:, e:,

u:/ + Arabic */r/* respectively. (O'Connor 1976: 168-69).

2.3.2.2 French Vis-a-Vis English

As in Arabic, /θ/ and /ð/ do not occur in French and are replaced by */s/* and */z/*, or less commonly by */f/* and */v/*.

/h/ does not occur in French and is omitted in English. */p,t,k/* are generally not aspirated in French, which may lead to confusion with */b,d,g/* in English. */t/* and */d/* are dental stops in French. */l/* is always clear in French.

As to vowels, */i:/* and */i/* are confused, */i:/* being used for both. */æ/* and */ʌ/* are confused, */ʌ/* being used for both. */ɔ/* is often pronounced in a way that makes it sound like English */ʌ/*. */əu/* is replaced by the non-diphthongal vowel in French *beau*, which causes confusion with */ɜ:/*. */ei/* is replaced by the non-diphthongal vowel in French *gai* 'gay'. */iə,ɛə,uə /* are replaced by the nearest vowel sound + */r/* in French as in *lire* 'read', *terre* 'earth', *lourd* 'heavy'.

Vowels are usually short in French, compared with English. (O'Connor 1976: 171-72).

2.3.2.3 Swahili Vis-a-Vis English

The English consonant sounds do not give Swahili-speaking students much difficulty when they occur before vowels. The main problems arise with consonant

clusters to which students will be tempted to add a vowel sound.

As far as vowels are concerned, Swahili allows all the possible combinations of its five vowels, but gives one syllable to each vowel, so that the combination of two vowels is two syllables, as in words like *bei* and *pia*. Thus, a Swahili speaker who hears or produces an English diphthong either he will make it two syllables, or he will replace it by the closest simple vowel. The second type of error is probably more frequent. The English word *late* is likely to be confused either with *lay it* or with *let*. (Pronunciation Teaching (Revised edition) Institute of Education, University of Dar es Salaam, 1974).

2.3.2.4 Amharic Vis-a-Vis English

For Amharic-speaking learners of English, according to Taddese Beyene (1968), categories like /v, θ, ð, ŋ, l, r/ constitute a learning problem from amongst the English consonants.

Regarding vowels, Amharic has only seven vowels, but English has twelve pure vowels. Therefore, the categories which are non-existent in Amharic but found in English constitute a special problem for Amharic-speaking learners of English.

As to consonant clusters, the writer explains that there are no initial consonant clusters in Amharic. All the clusters are either medial or final. But, it is evident from experience that all initial and final complex consonant clusters in English constitute a problem for Amharic speakers.

Moreover, none of the English diphthongs occur in Amharic, therefore English diphthongs may constitute a problem for Amharic-speaking learners of English..

The above mentioned languages have been taken as examples to show the difficulties faced by speakers of different languages in learning some English phonemes and their variants. Although contrastive studies, at phonological level, between English and most major languages of the world have been carried out, little is done in this regard in Ethiopia. It is, however, true that a number of students have carried out contrastive studies between Amharic and other Ethiopian languages for their senior essays as partial fulfilment for BA and theses for MA degrees at Addis Ababa University, little has been done between English and Ethiopian languages. To this effect, as shown above (2.3.2.4), a constrastive study has been carried out by Taddese Beyene (1968) between Amharic and English segmental phonemes. In his study, *Amharic and English segmental phonemes: A contrastive study*, the researcher

dealt with the prediction errors Amharic native speakers make when learning English at the level of segmental phonemes and classified the predicted errors according to their types.

As regards Oromo, no contrastive study has been carried out between English and Oromo segmental phonemes so far. But nevertheless, Eshetu Kebede (1963 E.C.) has made a contrastive study between Amharic and Oromo segmental phonemes. The study was solely based on error predictions. Similarly, Gulte Hailu (1968 E.C.) carried out a contrastive study between the same languages. The latter study was concerned with error analysis based on the errors committed by 8th grade Oromo native speaking students in learning Amharic.

On the other hand, Wako Tolla (1981) in his study, *The Phonology of Mecha Oromo*, has dealt with the segmental phonemes and suprasegmental phonemes of Mecha Oromo. In this work, the writer has described the phonemes and their variants and the suprasegmental phonemes of Oromo other than intonation. Hence, Wako Tolla's study has been used as a valuable source for the description of Oromo phonemes in the present study.

2.3.3 The Present Trend

For several decades, linguists and teachers assumed that most second language learners' errors resulted from differences between the first and second languages.

This was the basis of the long-popular contrastive theory. Now, researchers have learnt that the first language has a far smaller effect on second language syntax than previously thought.

In support of this view, Heidi Dulay et.al. in their book, Language Two, write, "Studies show, for example, that only 5% of the grammatical errors children make and at most 20% of the ones adults make can be traced to crossover from the first language" (*Heidi Dulay et.al. 1982: 5*).

Despite a long history of assumption that the first language has long been the villain in second language learning, the major cause of a learner's problems with the new language, present research results suggest that the major impact the first language has on second language acquisition may have to do with accent, not with grammar or syntax. In line with this, Heidi Dulay, et al. further state, "Pronunciation is more susceptible to first language crossover than grammar" (*ibid*).

An examination of the available empirical data that addresses the CA hypothesis has revealed that:

1. In neither child nor adult L_2 performance do the majority of the grammatical errors reflect the learners' L_1.
2. L_2 learners make many errors in areas of grammar that are comparable in both the L_1 and L_2 — errors

that should not be made if 'positive transfer' were operating.

3. L_2 learners' judgements of the grammatical correctness of L_2 sentences are more related to L_2 sentence type than to their own L_1 structure.
4. Phonological errors exhibit more L_1 influence than do grammatical errors, although a substantial number of the L_2 phonological errors children make are similar to those made by monolingual first language learners, and only a small portion of phonological errors in reading are traceable to the learner's L_1 (*ibid.*; 97-98).

Furthermore, those who are opposed to CA and follow error analysis (EA), as quoted by Lulseged Erkihun, in his study, *A Contrastive Study of Amharic and Gedeo Phonology*, assert that:

1. Errors which cannot be predicted by means of CA can be discovered by error analysis;
2. CA does not predict difficulties which are previously unknown;
3. Error prediction is not only, in most cases, unnecessary, but also unfeasible without prior analysis which has led to generalization in error genesis (*Lulseged Erkihun 1981: 8*).

An attempt has been made to briefly show what the proponents of CA have to say about this predictive device and what those who are opposed to CA say about this

approach. In sum, the proponents of CA say that CA is a predictive device used to predict points of difficulty and errors that learners will make in the process of learning L_2. There seems then to be three things that a CA can predict: it can predict — in the sense 'pre-identify' — what aspects will cause problems; or it can predict difficulty; or it can predict errors. On the other hand, those who are opposed to CA, in the words of Carl James, say "CA is not only problematic, but also fraught with controversy" (*Carl James 1980: 166*)

Despite the attacks it has come under from different quarters, CA still remains highly vigorous. This vigour manifests itself in several ways: papers read out at conferences and published in journals; masters' dissertations; and postgraduate course component offerings in CA. As Carl James notes, "CA has very high 'face validity', that it seems that the plausible and obvious thing that applied linguists ought to do, and yet at the same time there are these pangs of insecurity concerning its theoretical foundations" (*ibid*).

Similarly, H.H. Stern states, "Although CA has never recovered the place it held in language pedagogy in the early sixties, its value has been reassessed and its continued importance is hardly disputed" (*H.H. Stern 1986: 168*).

To sum up, it can be deduced from the preceding arguments that although CA has been used as a strong predictive device for a number of years to reveal the difficulties of second language learners, researchers have found out that the influence of the learner's first language in acquiring L_2 is negligible in grammar or syntax. The influence of L_1 is, however, significant in prorunciation.

However predictive CA may be to identify the difficulties L_2 learners have at phonological level, the writer of this paper feels that it is more reliable to analyze the actual errors committed by learners of L_2. Hence, in this paper, the writer has attempted to analyze different English sounds as rendered by the subjects in the production test.

CHAPTER THREE

3. Research Methodology

3.1 Method of Data Collection

In this study 62 native speakers of Oromo were given two tests to generate data for this study — to empirically verify the difficulties Oromo learners of English may have in discriminating and producing certain English segmental phonemes.

To this effect, a questionnaire was distributed to all sections of Freshman degree students of 1987/88 academic year at the main campus of Addis Ababa University. Totally, 587 students filled in the questionnaire. Of these 587 students, 81 are native speakers of Oromo. Out of these 81 native speakers of Oromo 9 are females. These 81 individuals come from 12 administrative regions including Addis Ababa.

To carry out the study, 62 subjects were selected from 81 native speakers of Oromo by random sampling technique. However, the 9 girls were all taken for the fact that the number of females was very small in comparison with the number of males (72). So, 9 females and 53 males were used in this study.

The 62 subjects were given two tests. The first test was discrimination test and the second was production test. Prior to the administration of the tests, the subjects were oriented on the objectives of the tests and how to use

tape-recorders and give authentic responses as required in the tests.

The names of the 62 subjects were alphabetically arranged and each subject was given a number that corresponded to his or her name on the list. This was done to avoid confusion and facilitate the work.

In the discrimination test, minimal pairs that consisted of English consonant and vowel sounds, diphthongs, closed and open syllables and consonant clusters were designed paying due attention to areas thought to be problematic for Oromo learners of English. The test was divided into parts to detect the specific problems encountered by the subjects in each part. Each part was taped onto a recorder by two non-native speakers of English whose English pronunciation is acceptable and intelligible from the point of view of a native speaker. This test was aimed at verifying the difficulties these respondents may have in discriminating between English sounds that are closely related by their manner of articulation and/or point of articulation.

The production test was designed in context, i.e. minimal pairs were used in sentences. The test was aimed at finding out whether the respondents could produce what they had discriminated or otherwise. Therefore, each subject read onto the tape-recorder the sentences selected for this purpose.

3.2 Method of Data Analysis

After administering the two tests, the next step was to analyze the responses given to the first test and to transcribe and analyze the words recorded in the second test by each subject.

The responses given to the discrimination test were carefully marked and analyzed to find out the difficulties the subjects had in discriminating the sounds. Then, the minimal pairs used in the production test were transcribed and compared with the same pairs as pronounced by a near-native speaker of English to find out the difficulties the subjects had in producing these pairs. After that, the pronunciation errors made by the subjects were classified according to their types. Moreover, the results of the two tests were compared to see if there was any correlation between discrimination and production using rank-order correlation coefficient (r_s). The mean scores and standard deviations of each test were also computed and compared.

CHAPTER FOUR

4. Description and Comparison of English and Oromo Segmental Phonemes

4.1 Description of English Phonemes and Allophones

Native speakers of English from different parts of the world have different accents, but the differences of accent are mainly the result of differences in the sound of the vowels; the consonants are pronounced in very much the same way wherever English is spoken. So, as O'connor (1976: 32) notes, "If the vowels you use are imperfect it will not prevent you from being understood, but if the consonants are imperfect there will be a great risk of misunderstanding."

O'Connor (*ibid.*) further states that consonants contribute more to making English understood than vowels do. Second, consonants are generally made by a definite interference of the vocal organs with the air stream, and so are easier to describe and understand.

In the production of vowel sounds, however, none of the articulators come very close together, and the passage of the airstream is relatively unobstructed. As P. Ladefoged (*1982:11*) states, "Vowel sounds may be specified in terms of the position of the highest point of the tongue and the position of the lips."

4.1.1 The Consonants of English

"A consonant is a sound in which the air from the lungs is not allowed to pass out through the mouth without something interrupting it." Robert Hooke and Judith Rowell (1982: 2). English has 24 consonants. These consonant phonemes are described as follows based on their manner and point of articulation. The writer of this paper has adopted, in his description of English phonemes, the model of description used by Howard Jackson (1982) in his book, Analyzing English: An Introduction to Descriptive Linguistics (2^{nd} ed.). The writer has chosen this model for its clarity and brevity.

4.1.1.1 The Stops (Plosives)

Plosive consonants in English involve a complete closure in the mouth, a raised velum preventing escape of air through the nasal cavity, and plosion after the release of the closure.

The phonemes /p/, /t/ and /k/ each have an aspirated allophone [p^h], [t^h] and [k^h], and an unaspirated allophone [p], [t], [k]. And these allophones are in complementary distribution: the unaspirated allophone occurs after /s/ and the aspirated allophone occurs in all other positions. The degree of aspiration varies from environment to environment. There is strong aspiration when the plosive occurs initially in a stressed syllable, e.g. in pin, tin, kin. Between vowels the aspiration tends to be rather weak, and may indeed be absent altogether, e.g. in upper, utter, sucker. And in

final position the amount of aspiration is variable, depending whether the plosive is released fully or not, e.g. as in sip, sit, sick.

The voiced plosives in English /b, d, g/ may be considered to have two allophones. The main allophone, and the one which occurs in all environments, is fully voiced [b], [d], [g].

The other allophone occurs only in word-final position and is a devoiced variant [b̥], [d̥], [g̥]. It is in free variation with the fully voiced allophone, that is, either of them may occur in this position with no particular factor conditioning the occurrence of one rather than the other, except for the speaker's whim at the time, e.g. as in rib, rid, rig.

The difference between /p,t,k/ and /b,d,g/ in English is not merely one of voicing, or even unequivocally one of voicing; that is, the distinction between voiced and voiceless. It is also a difference of aspiration. The one environment in which unaspirated voiceless plosives regularly occur, i.e. after /s/, is the one in which voiced plosives do not occur: there are no English words beginning with /sb/, /sd/ or /sg/. There is, therefore, no contrast between voiceless and voiced plosives in English in this environment. In all other environments (initially, finally, intervocalically) /p,t,k/ and /b,d,g/ are distinguished both by voicing and usually also by aspiration. In fact, aspiration might be said to be more important in distinguishing /p,t,k/ (or words containing them) from /b,d,g/ (or words containing them).

Besides the allophones already mentioned, the alveolar plosives each have a further allophone. In words like *width* /widθ/ and *eighth*/eitθ/ the articulation of the plosive is not alveolar, but dental: the tongue tip makes a closure with the back of the upper front teeth, rather than with the alveolar ridge. So /d/ has an allophone [$\underset{n}{d}$] before a dental fricative, and /t/ has an allophone [$\underset{n}{t}$] before a dental fricative.

Similarly, the phoneme /k/ has an allophone [$\overset{+}{k}$] or [$\overset{+}{k}^h$] before front vowels, and an allophone [$\bar{k}$] or [$\bar{k}^h$] before back vowels; and the phoneme /g/ has an allophone [$\overset{+}{g}$] before front vowels and an allophone [$\bar{g}$] before back vowels.

Furthermore, when a voiceless alveolar plosive /t/ occurs in final position in a syllable, it may be articulated as a glottal stop, e.g. in *suit*. So the phoneme /t/ has allophone [ʔ] occurring in syllable final position and which is in free variation with [t^h].

4.1.1.2 The Fricatives

The largest group of consonants in English comprises the fricatives, sounds that involve a near-closure with friction resulting between the articulators. In most cases there is a voiced and a voiceless fricative occurring at each place of articulation.

Like voiced plosives, voiced fricatives have a devoiced allophone occurring word-finally, which is in free variation with the normal fully voiced allophone, e.g. *rise* [$\underset{c}{z}$], *live*

[v̥], *seethe* [ð̥]. The voiced palato-alveolar fricative /ž/ occurs only intervocalically, except for a few loan-words from French, where it may occur initially and finally.

4.1.1.3 The Affricates

Affricates involve a complete closure, as for plosives, but the release phase is not with plosion but with friction. In the case of the palato-alveolar affricates the closure is made with the tongue blade and front at the alveolar ridge and hard palate area, and the release is by means of a palato-alveolar fricative. These sounds are symbolized by č for the voiceless palato-alveolar affricate, and by ǰ for the voiced palato-alveolar affricate. They occur in all positions in English words, e.g. *chin/gin*
riches/ridges
lunch/lounge

4.1.1.4 The Nasals

Like plosives, nasals involve a complete closure in the mouth, but unlike for plosives, the soft palate is lowered so that air may escape through the nose. Nasals, unlike plosives, but like fricatives, are continuant sounds. This means that their articulation may continue for as long as the person can find breath. In English, nasal consonants are normally voiced; voiceless nasals do sometimes occur in some contexts, but they are then variants of normal voiced nasals.

The alveolar nasal has a dental articulation before dental fricatives as in *plinth, ninth*. So the phoneme /n/ has an allophone [n̪] occurring before dentals, and an allophone [n] occurring elsewhere. They are in complementary distribution. The other variant occurs as an allophone of both the bilabial nasal and the alveolar nasal. When these occur before a labio-dental fricative /f,v/ as in symphony, convert they are often articulated as a labio-dental nasal [ɱ]. This allophone is probably in free variation with the normal allophone [m] and [n]; its occurrence is more likely, the more rapidly a person speaks. So the phoneme /m/ has an allophone [ɱ] before labio-dental fricatives, which is in free variation with the normal allophone [m]; and the phoneme /n/ has an allophone [ɱ] before labio-dental fricatives, which is in free variation with the normal allophone [n].

4.1.1.5 Frictionless Continuants

Frictionless continuants are the sounds involving a near-closure in the mouth but without friction. The normal English ɹ sound is a post-alveolar frictionless continuant: a near-closure is made between the tongue blade and the area just behind the alveolar ridge.

It is possible to recognize three regularly occurring allophones of the /r/ phoneme in English. The allophone with the widest distribution is the post-alveolar frictionless continuant [ɹ]. After fortis consonants /p, t, k, f, θ,

ɣ, etc./ a devoiced (voiceless) allophone occurs [ɹ̥], e.g. in train, crane, free, shrug. These two allophones are in complementary distribution. The third possible allophone is a flapped consonant [ɾ], which may occur intervocalically e.g. in very, marry.

Two further sounds are included among the frictionless continuants, although they are sometimes also called semi-vowels. They have similarity with particular vowel sounds of English, and were it not for the fact that they pattern like consonants in the structure of English words and syllables, they would be counted as these vowels.

One is the bilabial frictionless continuant, represented by the familiar symbol *w*, which is similar to the close back rounded vowel, as in boot. This occurs in initial and medial positions, e.g. wet, tower. But in final positions, its occurrence in spelling is usually considered to be a close back rounded vowel.

The other vowel-like consonant sound is the palatal frictionless continuant, where the near-closure is between the tongue front and the hard palate. It is represented by the symbol *ɥ*, and it is similar to a close front spread vowel as in beat. The occurrence of the palatal frictionless continuant is restricted: it is found in initial position, and in initial consonant combinations after certain consonants, e.g. yet, beauty (by), queue (ky). Both /w/ and /y/ are normally voiced.

4.1.1.6 Laterals

Like nasals, the lateral consonants are also continuant sounds: there is a complete closure, but air escapes over the side of the tongue. In English laterals are normally voiced, although there is a voiceless variant that regularly occurs in a particular context. The only lateral occurring in English is the alveolar lateral, represented by the familiar symbol /l/. It is found in all positions in English words, e.g. late, filler, tail. In fact, there is a marked difference in quality between the alveolar lateral in initial position and that in final position. The difference arises from the configuration of the body of the tongue in the mouth: for the alveolar lateral in final position, the back of the tongue is raised towards the soft palate, and it is said to be velarized. The velarized alveolar lateral is symbolized by /ɫ/.

A non-velarized allophone [l] occurs before vowels and /y/, as in leave, early, illuminate, and a velarized allophone occurs before consonants, /w/ and word finally, as in altogether, always, pool. These allophones are in complementary distribution. There is, in addition, a third allophone which is in complementary with the two: after a fortis plosive /p,k/ the alveolar lateral in English is devoiced, e.g. in play, clean. So the phoneme /l/ has the allophone [l̥] after /p,k/. There is yet one more allophone of /l/ in complementary distribution with the others: like the alveolar plosives, the alveolar lateral has a dental articulation when

it occurs immediately before a dental fricative, as in filth, stealth. Since the occurrence is before a consonant, the allophone is also velarized: [$\overset{\downarrow}{n}$].

TABLE 1

Place of Articulation

Manner of Articulation	Bilabial	Labio-dental	Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
Plosive	p b			t d			k g	
Fricative		f v	θ ð	s z	ʃ ʒ			h
Affricate					ʧ ʤ			
Nasal	m			n			ŋ	
Lateral				l				
Frictionless Continuant	w			r		y		

A Phonetic Chart of the English Consonants (*H. Jackson 1982: 19*).

4.1.2 English Pure Vowels

"Vowels are sounds which are made without any kind of closure or impediment to the escape of air through the mouth" (H.Jackson 1982:20). Pure vowels are made with the mouth taking up a single position during the articulation.

In English, pure vowels are made in all three areas of the mouth — front, central and back.

4.1.2.1 Front Vowels

In the front area English has four vowels; all made with spread lips. Two of the front vowels are in the close area. One is the close front spread vowel found in beat or sheep and symbolized by i:, so these words would be transcribed phonemically as /bi:t/ and /ʃi:p/. The other is a more open and a more central close front vowel, usually described as a lowered and centralized close front spread vowel. It is represented by the symbol ɪ, and it occurs in bit /bɪt/ and ship /ʃɪp/.

English has no vowel at precisely either the half-close or the half-open position, but one *mid* way between the two. This is usually described as a mid front spread vowel. It is sometimes symbolized by e which is the International Phonetic Alphabet Symbol for a half-close front spread vowel, but it is more usually symbolized by ɛ, the IPA symbol for a half-open front spread vowel. This vowel occurs in bet /bɛt/ and fetch /fɛʧ/.

The other English front vowel is in the open area, but it is not completely open: it is somewhere between half-open and open, although it is usually described as an open front spread vowel. It occurs in bat /bæt/ and catch /kæʧ/.

4.1.2.2 Back Vowels

In the back area of the mouth we can recognize five vowels in English four of them are made with rounded lips and one with spread lips. There are also two vowels in English that fall in the close back area. One is the close back rounded vowel /u:/, as found in boot and tool. The other is a more open and more central variety, usually described as a lowered and centralized close back rounded vowel /u/, as found in book and put.

As in the case of front vowels, English has no vowels at precisely half-close and half-open back positions. There is one vowel somewhere between the two, probably nearer to half-open than half-close. The IPA symbol for a half-close back rounded vowel (o) is sometimes used to symbolize it, but more usually the IPA symbol for a half-open back rounded vowel is used, ɔ. It may be described as a mid back rounded vowel and it occurs in bought /bɔ:t/ and law /lɔ:/.

In the open back area two vowels are found in English, one made with rounded lips, the other with spread lips. The open back rounded vowel is, like its front counterpart, not completely open, but somewhere between half-open and open. Nevertheless, the IPA symbol for an open back rounded vowel is used to represent it, ɒ. This vowel occurs in hot /hɒt/ and moss /mɒs/. The open back spread vowel is completely open but not completely back: it tends towards the central position. The IPA symbol for an open back spread vowel is

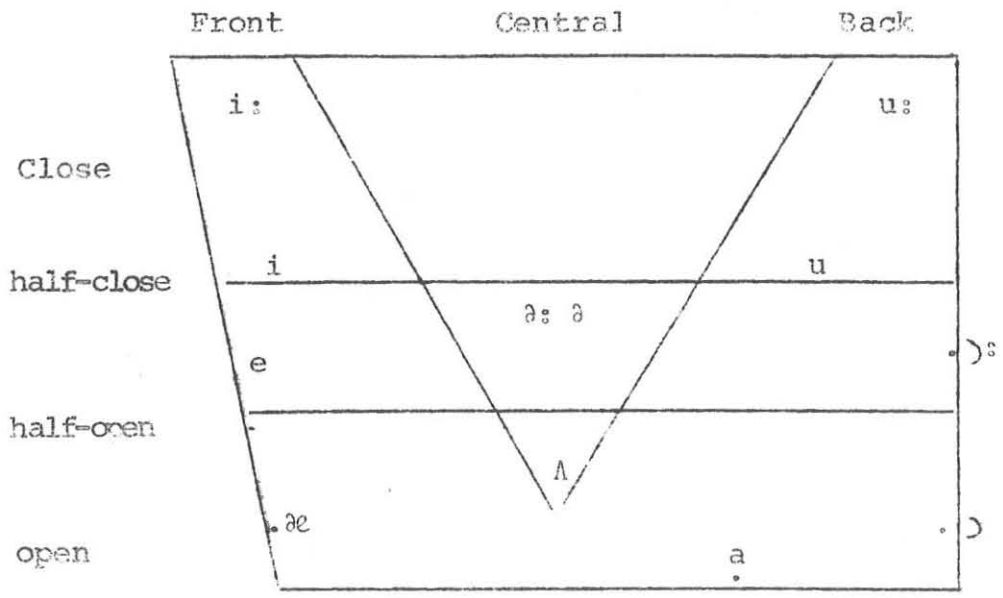
used to represent it, a, and it occurs in farm /fa:m/ and cart /ka:t/.

4.1.2.3 Central Vowels

These vowels are made in the central area of the mouth. There are three vowels produced in this area in English, all with spread lips. One of these central vowels is in the open area, but like æ and ɒ in fact mid-way between half-open and open, although it is described as an open central spread vowel. It is represented by the IPA symbol for a half-open back spread vowel, namely ʌ, and it occurs in but /bʌt/ and some /sʌm/.

The other two central vowels in English are both mid central spread vowels, that is mid-way between half-close and half-open. These sounds may be illustrated by the vowel in bird, represented by the symbol ə:, and the final vowel in father, represented by the symbol ə. The latter sound is often referred to as the schwa vowel; it occurs in English only in unstressed syllables and has a generally lax articulation. By the contrast the ə: vowel occurs in stressed syllables, and is generally longer in duration than the schwa vowel. They may be further illustrated by loser /'luzə/, ahead /ə'hed/, girl /gə:l/, first /fə:st/.

TABLE 2



The vowel chart of English (*H. Jackson 1982:22*).

4.1.3 English Diphthongs

Diphthongs can be described in terms of the pure vowel from which the articulation starts, and the pure vowel in whose direction the articulation moves.

They may be divided into three groups according to the vowel towards which the articulation of the diphthong moves. In the case of three diphthongs the articulation moves towards a lowered and centralized close front spread vowel (*i*); in the case of two it moves towards a lowered and centralized close back rounded vowel (*u*); and in the case of the remaining three it moves towards the unstressed mid central spread vowel (ə).

4.1.3.1 *i* Diphthongs

ei diphthong beginning with half-close front spread vowel, moving towards lowered and centralized close front spread vowel, e.g. late /leit/.

ai diphthong beginning with open front spread vowel, moving towards lowered and centralized close front spread vowel e.g. sight /sait/.

ɔi diphthong beginning with half-open back rounded vowel, moving towards lowered and centralized front spread vowel e.g. soil /sɔil/.

4.1.3.2 u Diphthongs

əu diphthong beginning with unstressed mid central spread vowel, moving towards lowered and centralized close back rounded vowel e.g. boat /bəut/.

au diphthong beginning with open central spread vowel, moving towards lowered and centralized close back rounded vowel e.g. house /haus/.

4.1.3.3 *ə* Diphthongs

iə diphthong beginning with lowered and centralized close front spread vowel, moving towards unstressed mid central spread vowel e.g. fierce /fiəs/ .

eə diphthong beginning with half-open front spread vowel, moving towards unstressed mid central spread vowel e.g. fair /feə/.

uə diphthong beginning with lowered and centralized close back rounded vowel, moving towards unstressed mid central spread vowel e.g. cruel /kruəl/.

The short vowels have no variants. The long vowels and diphthongs, however, vary in length according to the environment in which they occur. They can be considered to have two allophones: (1) a short allophone before a fortis consonant, i.e. /p,t,k, $\overset{\circ}{c}$,f,θ,s,$\overset{\circ}{ʃ}$/, (2) a long allophone in all other environments. Example: the length of the vowels in bead /beat, rude / root, card / cart, cause/course longer for the lenis consonants.

4.1.4 Combination of Phonemes

The possibilities of phoneme combination are not unlimited: any phoneme may not combine with just any other. There is the obvious restriction imposed by the nature of syllable structure consonant-vowel-consonant (CVC); a syllable could not be [illegible] composed of just consonants, nor of more than one vowel or diphthong. But even taking this restriction into account, some phoneme combinations would be imposible to pronounce e.g. /ŋgnusr/, except perhaps with extreme difficulty. Other combinations, although in principle quite pronounceable, just do not occur in English, e.g. /ŋIfk/. English does not use all the possible pronounceable combinations of phonemes to make syllables and words. That is to say, there are certain rules of

phoneme combination for English which can be deduced from the syllables and words actually occurring.

4.1.4.1 Initial Periphery

We can describe the rules of phoneme combination in terms of the consonants and their combinations that may occur in peripheral positions in syllables. It is possible that no consonant at all will occur before the vowel (as in out), and that is the case in English before all the vowel phonemes except two: /u/ and /uə/ never occur without a consonant preceding. All the consonant phonemes of English may occur singly in syllable initial position except two: /ᵛz/ and /ŋ/ never occur by themselves, nor in combination with another consonant, in the initial periphery of an English syllable.

The following syllable initial two consonant combinations are possible: /sm/, /sn/, /st/, /sk/, /sp/, /sf/, /dw/, /θw/, /tw/, /dr/, /θr/, /tr/, /kw/, /kr/, /kl/, /pr/, /fr/, /br/, /gr/, /pl/, /fl/, /bl/, /gl/, /ᵛðɹ/, /sw/, /sl/.

The six three-consonant combinations are: /spl/, /spr/, /sfr/, /str/, /skr/, /skw/. The combination /sfr/ occurs only in the word sphragistics, the study of engraved seals.

4.1.4.2 Final Periphery

All consonant phonemes may occur singly in syllable final position in English, except the following four: /h/, /r/, /w/, /y/. The following vowels are always followed by

a consonant: /e/, /æ/, /ɒ/, /u/, /ʌ/.

The seven permissible four consonant combinations are as follows: /-lkts/, /-mpst/, /-mpts/, /-ksts/, /-ŋkθs/, /-ksθs/, /-ntθs/, as in mulcts, glimpsed, tempts, texts, twelfths, sixths, thousandths.

"Some languages (e.g. Russian, German) have many consonant sequences, and speakers of these languages will not have any difficulty in pronouncing most of the English ones" (O'Connor 1976: 83). O'Connor (ibid.) further explains that other languages (e.g. Mandarin, Cantonese, Vietnamese, Swahili, Yoruba, Tamil) do not have sequences of consonants at all, or only very few and very short ones, and speakers of these languages (in which two consonants are usually separated by a vowel) may have difficulty in stringing together two, three or four consonants with no vowel between them.

The English language has the following syllable structures as stated by Taddese Beyene (1968) in his MA Thesis: Amharic and English Segmental Phonemes: A Contrastive Study. (v = vowel, c = consonant).

v	ccv	
		cvccc
vc	cccv	
vcc	cvc	
		cvcccc
cv	cvcc	

This will later be compared with Oromo syllable structures.

TABLE 3

English Consonant Clusters

1st Members	Second Member of Initial and Final Clusters																					
	p	b	t	d	k	g	f	v	θ	ð	s	ż	v s	v c	v j	m	n	ŋ	l	r	y	w	h
p			-				-		-		-								+	+	+		
b												-							+	+	+		
t									-		-									+		+	
d									-			-								+		+	
k			-								-								+	+		+	
g												-							+	+			
f			-						-										+	+			
v																							
θ																				+		+	
ð				-								-											
s	+		+		+		+									+	+		+			+	
z	-		-		-																		
v s																				+			
v z																							
v c																							
v j																					+		
m	-				-		-					-									+		
n			-	-					-		-	-		-	-						+		
ŋ				-	-							-											
l	-	-	-	-	-		-	-	-		-	-	-	-	-	-							
r	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-				

+ = indicates initial clusters of English.

- = " final " " "

Source: *(Taddese Beyene 1968: 109).*

4.2 Description of Oromo Phonemes and Allophones

The writer of this paper has followed Wako Tolla's (1981) model in the description of Oromo segmental phonemes.

4.2.1 Oromo Consonants and their Variants

The Oromo language has 24 consonants not counting the ones which occur in loan words (e.g. *p, z*).

4.2.1.1 Stops

There are ten stop consonant phonemes in Oromo.

Bilabial stops

/p'/ is a voiceless ejective bilabial stop realized as [p'] everywhere.

/bup'p'a:/ 'egg'

/kop'e/ 'shoes'

/b/ is a voiced bilabial stop and has the following allophones.

[b̄] a voiced lenis unreleased occurring intervocalically

/dʌbʌlu:/ 'to add'

[b] a voiced lenis released bilabial stop occurs in other environments.

/ba:la/ 'leaf'

/kʌlbi:/ ~'memory'

Alveolar stops

/t/ is a voiceless alveolar stop and has the following allophones.

[t^h] a voiceless fortis aspirated released alveolar stop occurring word initially.

/t^huk'u/ 'to touch'

/t^hokko / 'one'

[$t^=$] a voiceless fortis unaspirated unreleased alveolar stop occurring word finally.

/sʌdde:t/ 'eight'

[t] a voiceless fortis unaspirated released occurs elsewhere.

/mʌta/ 'head'

/bitu:/ 'to buy'

/t'/ is a voiceless ejective alveolar stop and has these allophones.

[t'^h] a voiceless fortis aspirated released alveolar stop occurs word initially before high back rounded vowels, /u/ and /u:/.

/t'^huri:/ 'dirt'

/t'^hu:tt'e/ 'absorbed'

[t'] an unaspirated released alveolar stop occurs elsewhere.

/t'inno:/ 'little'

/li:t'e/ 'I/he went/entered'

/d/ is a voiced alveolar stop and has the following allophones.

[$d^=$] a voiced lenis unreleased occurs in final positions

/gʌd/ 'down'

/bʌd/ 'get lost'

[d] a voiced lenis released occurs elsewhere.

/de:me/ 'I/he went'

/mʌda:/ 'wound'

/D/ is a voiced alveolar dental stop and is realized as [D] everywhere.

/DAɑɑa:/ 'stone'

/De:Di:/ 'raw'

Velar stops

/k/ is a voiceless velar stop and has the following allophones.

[k̟] backed voiceless non-ejective fortis released; occurs before back vowels.

/da: k̟u/ 'powder'

/k̟op'a/ 'alone'

[k̠] fronted voiceless non-ejective fortis released; occurs before front vowels.

/k̠eni/ 'give' (imperative)

/milk̠i:/ 'luck'

[k] voiceless fortis released velar stop; occurs elsewhere

/be:ksisa/ 'notice'

/be:kna/ 'we know'

/k'/ is a voiceless ejective velar stop and has the following allophones.

[k̟'] a voiceless backed fortis, ejective released; occurs before back vowels.

/k̟'o:nk'o:/ 'throat'

/k̟'uba/ 'finger'

[k̠'] a voiceless fronted fortis ejective released; occurs before front vowels.

/ǩ'i:t't'e/ 'centre'

/ǩ'e:nsa/ 'fingernail'

[k'] a fortis released ejective velar; occurs elsewhere.

/bʌk'site/ 'she melted'

/hʌk't'e/ 'she cleaned/wiped'

/g/ is a voiced velar stop with the following allophones.

[g̟] a voiced lenis backed released velar; occurs before back vowels.

/g̟ola/ 'inner room'

/g̟u:rra/ 'ear'

[g̠] a voiced lenis fronted released velar; occurs before front vowels.

/g̠i:ta/ 'class'

/g̠i:be/ 'name of a river'

[g] a voiced fortis non-backed released velar; occurs in other environments.

/ dugda/ 'back'

/ dinagde/ 'economy'

The glottal stop (ʔ)

It is common in Mecha dialect as Bender et al. (1976) explain and rarely occurs in other Oromo dialects.

harʔa (Mecha) 'today'

ha:r:a (Tulema) "

duʔna (Mecha) 'we are dying'

du:na (Tulema) " " "

4.2.1.2 Fricatives

There are four fricatives in Oromo.

The Labio-dental Fricative

/f/ is a voiceless labio-dental fricative and is realized as [f] everywhere.

/lʌfe:/ 'bone'

/fu:la/ 'face'

The Alveolar Fricative

/s/ is a voiceless groove alveolar fricative and is realized as [s] everywhere.

/sʌdde:t/ 'eight'

/ʔʌs/ 'here'

/ʔi ssa/ 'he'

The Palatal Fricative

/s̬/ is a voiceless palatal fricative with these allophones.

[s̬ >] a voiceless backed fortis palatal; occurs before back vowels.

/surru'bba:/ 'braided hairdo'

/sunkur'ta:/ 'onions'

[s̬ <] a voiceless fronted fortis palatal; occurs before the front vowels.

/mis̬ in'ca:/ 'sorghum'

[s̬] a voiceless fortis palatal fricative; occurs elsewhere.

The Glottal Fricative

/h/ is a voiceless glottal fricative and is realized as [h] everywhere.

/ha:da/ 'rope'

/hʌl'kʌn/ 'night'

4.2.1.3 Affricates

There are three affricates in Oromo.

/$\overset{V}{c}$/ is a voiceless palatal affricate and has the following allophones.

[$\overset{V}{c}_{>}$] a voiceless fortis backed released affricate; occurs before back vowels.

/lʌ$\overset{VV}{c}$cu/ 'both'

/?argʌ'$\overset{VV}{c}$cu/ 'to get'

[$\overset{V}{c}_{<}$] a voiceless fortis fronted released; occurs before front vowels.

/dʌ$\overset{VV}{c}$ce:/ 'earth'

/$\overset{V}{c}$'/ is an ejective palatal affricate with the following allophones.

[$\overset{V}{c}'_{>}$] a voiceless fortis back ejective palatal. It occurs before back vowels.

/$\overset{V}{c}_{>}$'op'a/ 'drop'

/$\overset{V}{c}_{>}$' u fu/ 'to close'

[$\overset{V}{c}'_{<}$] a voiceless fortis ejective fronted. It occurs before front vowels.

/ $\overset{v}{\underset{<}{c}}$'imu / 'to become strong'

/ $\overset{v}{\underset{<}{c}}$'e:me / 'I/he hesitated'

/$\overset{v}{j}$/ is a voiced palatal affricate with these allophones.

[$\overset{v}{\underset{>}{j}}$] a voiced lenis backed palatal. It occurs before back vowels.

/ ?eb$\overset{v}{\underset{>}{j}}$u: / 'dream'

[$\overset{v}{\underset{<}{j}}$] a voiced lenis fronted palatal. It occurs before front vowels.

/ $\overset{v}{\underset{<}{j}}$irru: / 'life'

4.2.1.4 Nasals

There are three nasals in Oromo. They are /m/,/n/,/$\tilde{n}$/.

/m/ is a voiced bilabial nasal and is realized as [m] everywhere.

/mAnə/ 'house'

/lAmə/ 'two'

/n/ is a voiced alveolar nasal and has the following allophones.

[n$^{=}$] a voiced lenis unreleased alveolar nasal. It occurs word finally.

/$\overset{v}{s}$An/ 'five'

/kun / 'this'

[n$^{\pm}$] a voiced lenis released alveolar nasal. It occurs before velars.

/dAnk'u?/ 'to obstruct'

[n] a voiced lenis released alveolar; occurs in other environments.

/buna/ 'coffee'

/lunna/ 'coward'

/n̂/ is a palatal nasal with the following allophones.

[n̂˃] a voiced lenis released backed palatal nasal. It occurs before back vowels.

/ʔeːn̂u/ 'who'

[n̂˂] a voiced lenis fronted released palatal nasal. It occurs before front vowels.

/sʌn̂n̂iː/ 'seed' or 'race'

[n̂] a non-backed palatal nasal. It occurs in other environments.

/man̂ʔe/ 'leg-bone'

4.2.1.5 The Lateral *Phoneme*

/l/ is a voiced alveolar lateral and has the following allophones.

[l̚] a voiced lenis unreleased alveolar. It occurs word finally.

/ʔol̚/ 'up'

/maːl̚/ 'what'

[l] a voiced lenis released alveolar. It occurs elsewhere.

/lʌmə/ 'two'

/ʲ˅˂ilba/ 'knee'

4.2.1.6 The Flap *Phoneme*

/r/ is the only flap phoneme and is realized as [r] everywhere.

/ro:ba/ 'rain'

/ʔʌrɡgu:/ 'to see'

4.2.1.7 The Semi-Vowels

There are two semi-vowels in Oromo. /w/ is a voiced labio-velar semi-vowel and has these allophones.

[w] < a consonantal voiced fortis. It occurs word initially before vowels.

/wa:k'a/ 'deity'

/wa:be/ 'name of a river'

[w] > a voiced consonantal lenis; occurs intervocalically before back rounded vowels.

/bʌwu/ 'to get out'

/ Diwo?/ 'near'

/y/ is a voiced palatal semi-vowel and has the following allophones.

[y] > a voiced consonantal lenis back variant. It occurs before the central and back vowels — [a:] and [o:].

/ya:du/ > 'to think'

/yo:m/ > 'when'

[y] < a voiced consonantal lenis. It occurs intervocalically before the front vowels.

/bʌye/ 'he went out'

/bʌyyi:/ 'public gathering'

4.2.1.8 Distribution of the Consonant Phonemes

The Stops

All the stops occur word initially and medially. As Oromo words are basically open-syllabic words, except in imperatives, few stops occur word finally.

e.g.	Phoneme	Initial	Medial	Final
	/ɒ'/	-	*salp'a*	-
			'light'	
	/b/	*bo:dde*	*sirba*	*sirb*
		'later'	'dance'	'dance' (imp.)
	/t/	*t'ʰuri:*	*ʃit'u:*	*ʃit'*
		'dirt'	'to finish'	'finish' (imp.)
	/d/	*du:ka:*	*soda:*	*gad*
		'after'	'fear'	'down'
	/D/	*De:Di:*	*ha:Da*	*hoD*
		'raw'	'mother'	'suck'
	/k/	*kop'e*	*mʌku:*	*mʌk*
		'shoes'	'to mix'	'mix' (imp.)
	/k'/	*k'o:p'p'i*	*lik'a:*	*DʌK'*
		'preparation'	'loan'	'go' (imp.)
	/g/	*gubba:*	*?arggu:*	*?arg*
		'on'	'to see'	'see' (imp.)
	/?/	*?ol*	*mo?u*	-
		'up'	'to win'	

The Fricatives

All the fricatives of Oromo occur word initially or word medially except for the glottal /h/, which is restricted to initial position only. The fricatives /ʃ/ and /s/ occur in all positions. /$\overset{v}{s}$/ does not occur word finally.

e.g.	Phoneme	Initial	Medial	Final
	/ʃ/	ʃidu:	dʌʃk'a	? oʃ
		'to bring'	'sweat'	'self'
	/s/	sirba	$\overset{\cup}{c}$'i:su	?ʌs
		'dance'	'to lie down'	'here
	/$\overset{\vee}{s}$/	$\overset{\cup}{s}$ʌn	bi$\overset{\cup}{s}$a:n	-
		'five'	'water'	
	/h/	ha:da	-	-
		'rope'		

The Affricates

Of the three affricates, the ejectives /$\overset{\vee}{c}$'/ and /$\overset{\vee}{j}$/ occur initially or medially but not finally. The short /$\overset{\vee}{c}$/ occurs only medially either in cluster or intervocalically.

e.g.	Phoneme	Initial	Medial	Final
	$\overset{\vee}{c}$	$\overset{\cup}{c}$e (expression used when chasing donkey)	?a$\overset{\cup\cup}{c}$ci 'after that'	?a$\overset{\cup\cup}{c}$ de:me 'he went there'
	$\overset{\vee}{c}$'	$\overset{\cup}{c}$'ʌbsu: 'to break'	k'o$\overset{\cup}{c}$'a: 'tortoise'	-
	$\overset{\vee}{j}$	$\overset{\cup}{j}$ʌlə 'under'	?i$\overset{\cup}{j}$ʌru: 'to build'	-

The Nasals

All the nasals occur in all positions except /$\tilde{n}$/ which does not occur finally.

e.g.	Phoneme	Initial	Medial	Final
	/m/	mʌnə	nʌmə	yo:m
		'house'	'person'	'when'

/n/	*nʌɦə*	*ʔolʌna*	*bišaːn*
	'body'	'higher'	'water'
/ñ/	*ñaːne*	*ʔeːñu*	-
	'we ate'	'who'	-

The Lateral

The lateral /l/ occurs initially, medially and finally.

e.g. Phoneme	Initial	Medial	Final
/l/	*lʌmə*	*baːla*	*ʔol*
	'two'	'leaf'	'up'

The Flap

The flap /r/ occurs initially, medially and finally.

e.g. Phoneme	Initial	Medial	Final
/r/	*raːgu*	*kʌraː*	*bor*
	'to foretell'	'road'	'tomorrow'

The Semi-Vowels

The semi-vowels /w/ and /y/ occur initially and medially only.

e.g. Phoneme	Initial	Medial	Final
/w/	*waːk'a*	*dʌwuː*	-
	'deity'	'to give birth'	
/y/	*yoːm*	*woːuya*	-
	'when'	'better'	

TABLE 4

Place of Articulation

Maner of Articulation	Bilabial	Labio-dental	Alveolar	Palatal	Velar	Glottal
Stop	(ɒ) b ɒ'		t d t' D	 ʧ' 	k g k'	ʔ
Fricative		f (v)	s (z)	ʃ		h
Affricate				ʧ ʤ		
Nasal	m		n	ñ	(ŋ)	
Lateral			l			
Flap			r			
Semi-vowel	w			y		

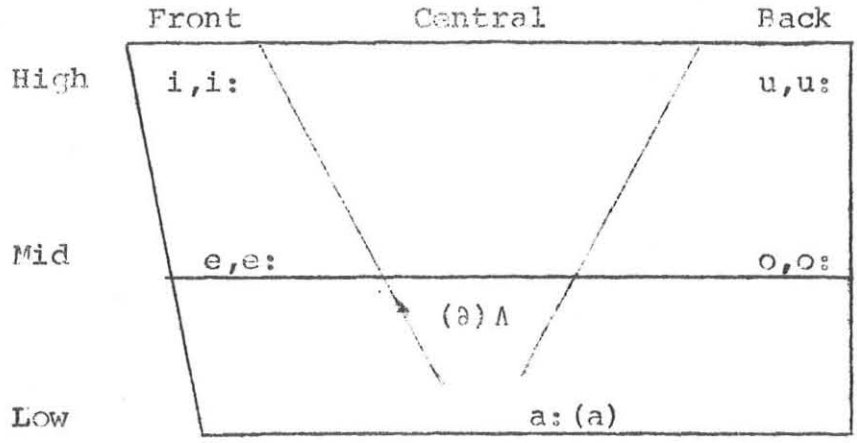
Oromo Consonant Chart

( )= absent categories

4.2.2 The Vowels of Oromo

Many writers including Bender et al. (1976), Wako Tola (1981), Barissa, the Oromo Weekly (1968 E.C.) indicate that there are five basic vowels in Oromo. However, besides these five basic vowels and their long forms, ʌ and its variant ə are also used in Oromo words as in *mʌnə* 'house' *nʌmə* 'person'. The following chart may explain the situation more clearly.

TABLE 5



The Vowel Chart of Oromo

1.2.2.1 The Front Vowels

/i/ is a high front unrounded vowel and has the following allophones.

[i̥] a high front unrounded lax devoiced vowel.

/ʼta:ʔi/ 'sit down'

/k͡ uni/ 'this'

[i] a high front unrounded tense voiced vowel.

/ mirga/ 'right (side)'

/e/ is a mid front open vowel with the following allophones.

[e̥] a mid front lax devoiced vowel.

/ Dufe̥/ 'I/he came'

[e] a mid front tense voiced vowel.

/ʃeʔu/ 'to want'

4.2.2.2 The Central Vowels

/a:/ is a low central vowel with these allophones.

[a̤] a low central lax open devoiced vowel.

/ʔiɬɬa̤/ 'he'

[a] a low central tense open voiced vowel.

/ɑʌrraʔ/ 'stomach'

/ʌ/ a half open back spread vowel.

/mʌc̆c̆i:/ 'drunkenness'

/ə/ an unstressed variant of /ʌ/. It occurs in unstressed syllables word finally in Oromo.

/mʌnə/ 'house'

/nʌmə/ 'person'

4.2.2.3 The Back Vowels

/u/ is a high back rounded vowel and has the following allophones.

[ṳ] a high back rounded lax devoiced vowel.

/haɸidu/ 'let him bring'

[u] a high back rounded tense voiced vowel.

/kute/ 'I/he cut/decided'

/o/ is a mid-back rounded vowel and has the following allophones.

/o̤/ a mid back lax rounded devoiced vowel.

/tʰokko/ 'one'

[o] a mid back rounded voiced tense vowel.

/kʼote/ 'I/he dug'

4.2.3 Consonant Clusters and their Distribution

Neither initial nor final clusters are found in Oromo. Consonant clusters occur only in medial positions and the number of consonants forming a cluster is limited to two.

e.g.	*ʔarma*	'here'
	sirña	'serious matter'
	ǰilba	'knee'

TABLE 6

Oromo Medial Consonant Clusters

First Members of clusters	Second members of clusters																							
	p'	b	t	t'	ɗ	D	k	k'	ɠ	ʔ	f	s	š	h	č	č'	j	m	n	ñ	l	r	w	y
p'					+							+	+				+		+					
b																								
t																								
t'																								
ɗ																								
D																								
k			+								+								+					
k'				+															+					
ɠ					+						+								+					
ʔ																								
f			+				+	+											+					
s																								
š							+																	
h																								
č																								
č'																								
j																								
m		+	+	+	+					+		+					+		+					
n			+	+	+	+	+	+			+	+			+	+	+							
ñ																								
l	+	+	+	+	+		+	+	+	+	+				+		+	+						
r	+	+	+	+	+		+	+	+	+	+					+	+	+						
w																								
y										+														

+ = actual clusters

Source: Wako Tola (1981)

4.2.4 Diphthongs

There are no diphthongs in Oromo.

4.2.5 The Syllable Structures of Oromo

Different syllable types are distributed in Oromo words in the following ways:

Syllable	Initial	Medial	Final
CV	*nʌ-mə*	*bʌ-rʌ-nə*	*lʌ-mə*
	'person'	'this year'	'two'
CVC	*bʌr-ba-du*	*hin-dem-te*	*ʃi-t'ʌn*
	'to look for'	'she went'	'they finished'
CV:	*bo:te*	*mʌra:te*	*ʃit'a:*
	'she cried'	'he became mad'	'finish'
CV:C	*be:k-ne*	*hin-de:m-tʌn*	*biʒa:n*
	'we knew'	'you'll go'	'water'

4.3 Comparison of English and Oromo Segmental Phonemes

In this chapter the segmental phonemes of Oromo and English are compared in order to determine their similarities and differences and also to predict the errors Oromo-speaking students make in the process of learning English.

The assumption behind this type of comparison is that the phonemes in the native language of the students that are structured and distributed similarly to those in the target language do not constitute a learning problem, that is, they function successfully when transferred in the

target language. On the other hand, the phonemes in the native language which are structured and/or distributed differently with those in the target language constitute a major learning problem. In the words of Robert Lado, "The list of problems resulting from the comparison of the foreign language with the native language (...) must be considered a list of hypothetical problems until final validation is achieved by checking it against the actual speech of students" (*Lado 1957: 72*).

4.3.1 The Consonants of English and Oromo

The consonant phonemes of English and Oromo are presented side by side in the following chart. Brackets indicate the areas where an English phoneme is unmatched by anything in Oromo.

TABLE 7

Place of Articulation

Manner of Articulation	Bilabial		Labio-dental		Inter-dental		Alveolar		Palatal		Velar		Glottal	
	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo
Stops	p b	p' b					t d	tt' d D			k g	kk' g		?
Fricatives			f v	f ( )	θ ð	( ) ( )	s z	s ( )	$\overset{v}{s}$ $\overset{v}{z}$	$\overset{v}{s}$ ( )			h	h
Affricates									$\overset{v}{c}$ $\overset{v}{j}$	$\overset{v}{c}$ $\overset{v}{c'}$ $\overset{v}{j}$				
Nasals	m	m					n	n		$\tilde{n}$	ŋ	( )		
Laterals							l	l						
Frictionless Continuants	w	w					r	r	y	y				

The Consonants of English and Oromo

The Stops

There are ten stops in Oromo as against six in English. Only one phoneme, /p/, is absent in Oromo from amongst the English stops. This may constitute a learning problem for Oromo speakers learning English.

The Fricatives

There are four fricatives in Oromo as against eight in English. /v, θ, ð, z, $\overset{v}{z}$/ are absent categories in Oromo, and therefore they may constitute a problem for Oromo students.

The Affricates

There are three affricates in Oromo /$\overset{v}{c}$, $\overset{v}{c}$', $\overset{v}{j}$/ as against two /$\overset{v}{c}$, $\overset{v}{j}$/ in English. Hence, no learning problem is likely to arise.

The Nasals

The nasal phonemes of Oromo are /m, n, $\tilde{n}$/, and those of English are /m, n,ŋ/. /$\tilde{n}$/ and /ŋ/ are absent categories as phonemes in English and Oromo respectively. The latter may constitute a learning problem for Oromo speakers.

The Lateral

The lateral phoneme /ɭ/ is common to both English and Oromo, however English /l/ is velarized word finally, inter-vocalically and between a vowel and following consonant. It is realized as [ɭ] every where. Therefore, the velarized [ɭ] may be difficult for Oromo learners of English.

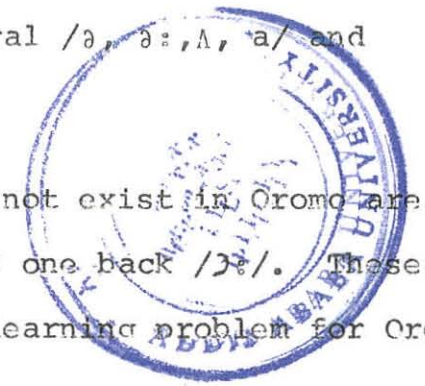
The Semi-vowels

Oromo has two semi-vowels /w,y/, as against three /w,y, r/ in English. Oromo /r/ is a flap phoneme and is realized as [r] every where, whereas English /r/ is a retroflexed semi-consonant and has three allophones. Hence, Oromo students tend to substitute the allophones of English /r/ by Oromo flap /r/ in all positions.

4.3.2 The Vowels of English and Oromo

Oromo has five basic vowels and the wedge /ʌ/. Each basic vowel has a long form. Two of these basic vowels are front /i,e/, two central /ʌ, a:/ and two back /o, u/ vowels. /ə/ occurs as a variant of /ʌ/ in unstressed syllables word finally.

On the other hand, English has twelve pure vowels: four front /i:, i, e,æ/, four central /ə, ə:,ʌ, a/ and four back /u, u:, ɔ , ɔ:/ vowels.



The vowels of English which do not exist in Oromo are one front /æ/, one central /ə:/ and one back /ɔ:/. These absent categories may constitute a learning problem for Oromo students.

Moreover, English has eight diphthongs (ei, ai, ɔi, əu, au, iə, eə, uə). None of these categories is present in Oromo. Therefore, these absent categories are likely to be troublesome for Oromo learners of English.

TABLE 8

	Front Unrounded		Central Unrounded		Back rounded	
	Eng.	Oromo	Eng.	Oromo	Eng.	Oromo
High	i:	*i*:	i	*i*	u(:)	u(:)
Mid	e	*e*	ə, ʌ	(ə) ʌ	ɔ	•
Low	æ	( )	a(:)	*a*: (*a*)	ɔ:	( )

The Vowels of English and Oromo

( ) = absent categories

4.3.3 Consonant Clusters

There are no initial or final consonant clusters in Oromo. All the clusters are medial with no more than two consonant sequences. As Bender (1976: 176) explains, when a medial cluster of more than three consonants arise in the course of inflection, the cluster is broken up:

a) by epenthesis of /i/ (the most common process): "we see" *arg + na* ——> *argina*;

b) if the first consonant is /r, l/ and the second an obstruent, by metathesis together with epenthesis of /a/: *arg + na* ——> *(optionally) agar + na* ——> *agarra*.

Hence, all initial and final complex consonant clusters in English may constitute a learning problem for Oromo speakers.

4.3.4 Syllable Structures

The following syllable structures of English are compared with syllable structures of Oromo to indicate similarities and differences between the syllable structures of the two languages.

Syllable Structure	English	Example	Oromo	Example
V	+	a-nv	-	-
VC	+	at	-	-
VCC	+	ask	-	-
CV	+	do	+	mʌ-nə
CCV	+	stu-dent	-	-
CCCV	+	str aw	-	-

+ = similar, - = different

Syllable Structure	English	Example	Oromo	Example
CVC	+	big	+	sʌn
CVCC	+	self	-	-
CVCCC	+	fists	-	-
CVCCCC	+	tempts	-	-

English syllables with initial cc, ccc; and with final cc, ccc, cccc may be difficult for Oromo learners of English.

The errors made by Oromo learners of English due to the differences between the phonemic systems of the two languages will be empirically verified in the next chapter (Chapter Five) by the results of the two tests administered for this purpose. However, the following (phonemic, phonetic, allophonic and distributional) errors can be predicted by comparing the phonemic systems of the two languages based on the theories of contrastive analysis (CA).

4.3.5 Classification of Predicted Errors

a) Phonemic Errors: The learner makes phonemic errors if the target language has phonemes which are unmatched in the phonemic system of the native language of the learner. To this effect, Oromo learners of English may make the following phonemic errors in the process of learning English.

e.g. English Phoneme	Wrong Substitution	Example
/θ/	/s/ or /t/	/sink/ or /tink/ for /θink/
/ð/	/d/ or /z/	/dat/ or /zat/ for /ð æt/

/v/	/f/	/haf/ for /hæv/
/æ/	/a/	/bad/ for /bæd/
/ɔ:/	/o/	/kot/ for /kɔ:t/
/ei/	/e/	/get/for /geit/

b) Phonetic Errors: If L_1 speakers make errors by substituting the phonemes of L_2 which are not absent in the phonemic system of L_1 but which are articulated in different and noncontrasting points of articulation under the influence of the phonemes from their native stock, the error is phonetic.

e.g. /r/ is common to both English and Oromo, but /ɾ/ is refroflexed in English, flap in Oromo. The error that is made by Oromo students due to this difference is phonetic.

c) Allophonic Error: If the corresponding phonemes of the two languages have different allophones and when learners make errors either by (*i*) transferring their allophones to the target language which are absent in the target language, or (*ii*) failing to produce or perceive the allophones of L_2 because L_1 lacks them.

e.g.

<u>English Allophones</u>	<u>Wrong Substitution</u>
[ɬ] velarized, as in still [stiɬ]	[l] non-velarized [istil]
[ɹ̥] devoiced, as in train [tɹ̥ein]	[r] voiced [tiren]

d) Distributional Errors: By carrying over the distributional pattern of his L_1 phonemes, the L_2 learner transfers his phoneme sequence habits into L_2. By the same token, as no initial or final clusters in Oromo, they may be rendered as follows:

e.g.	English		rendered as
	/spɔ:t/	'sport'	/isporti/
	/tri:/	'tree'	/tiri:/
	/pleis/	'place'	/piles/
	/sta:t/	'start'	/istarit/

Chapter Five

5. Data Analysis and Results of the Study

5.1 Analysis and Results of Discrimination Test

Sixty-two native speakers of Oromo were given two tests. The first test was discrimination test. In this test, the subjects were made to discriminate between minimal pairs. The test was divided into parts: consonant sounds, vowel sounds, diphthongs, words with closed and open syllables and consonant clusters. Each word was said twice. The subjects were to indicate the word they heard in each pair by making a tick, underlining or circling depending on the instruction given in each part. Later, each paper was marked and graded out of the total of 112.

The sounds which the subjects failed to discriminate in each part of the test were listed and the number of subjects who had difficulty in discriminating between each pair was also counted and noted. If a pair of sounds was confused only by one or two subjects it was not considered significant.

5.1.1 Consonant Sounds

Each part of the test was treated separately. The part which was analyzed first was the consonant sounds. It was observed that most subjects could discriminate between consonant sounds that are closely related either by their manner or point of articulation when they occur in identical environments. However, the following pairs of sounds were found to

be difficult for some subjects to discriminate:

/f/	and	/v/
/z/	"	/ð/
/d/	"	/ð/
/t/	"	/θ/
/s/	"	/θ/
/b/	"	/p/
/n/	"	/ŋ/
/$\overset{v}{c}$/	"	/$\overset{v}{ɟ}$/

/f/ and /v/

Most subjects could discriminate between /f/ and /v/ in this test when the two sounds occurred word initially. However, the problem arose when the two consonant sounds occurred word finally, as in <u>five</u> and <u>fife</u>; <u>save</u> and <u>safe</u>. To this effect, 18 (29%) subjects failed to discriminate between the two sounds word finally.

/z/ and /ð/

In this study, these two sounds were found to be one of the most difficult consonant pair of sounds to discriminate. Accordingly, 21 (34%) subjects failed to discriminate the two sounds, as in <u>close</u> and <u>clothe</u>.

/d/ and /ð/

Although the problem was not serious with /z/ and /ð/, some subjects found it difficult to discriminate between /d/ and /ð/. Out of the 62 subjects, 5 (8%) failed to discriminate between the two sounds as in <u>dare</u> and <u>there</u>.

/s/ and /θ/

Another area of difficulty, as observed in this study, was the trouble some subjects had to discriminate between /s/ and /θ/. Eleven (18%) subjects couldn't discriminate between these two sounds, in words such as sink and think.

/t/ and /θ/

It was observed that 9 (14%) subjects failed to discriminate between /t/ and /θ/ as in tin and thin.

/b/ and /p/

Most subjects had no difficulty in discriminating between the two sounds when they occurred word initially as in bit and pit, but the difficulty arose when the two pair of sounds occurred word finally, as in rib and rip. It was found out that 8 (13%) subjects couldn't discriminate between the two sounds word finally.

/n/ and /ŋ/

Six (10%) subjects found it difficult to discriminate between the two sounds word finally, as in sin and sing.

/$\overset{v}{c}$/ and /$\overset{v}{j}$/

These two sounds were also confused. In this test 6 (10%) subjects failed to discriminate between the two sounds as in choke and joke.

5.1.2 Vowel Sounds

The following vowel sounds were found to be difficult for the subjects to discriminate.

/e/ and /æ/

It was observed that 16 (26%) subjects couldn't discriminate between the two vowel sounds as in letter and latter.

/æ/ and /ʌ/

These vowel sounds were confused by 23 (37%) subjects who had difficulty in discriminating between the two vowel sounds as in cat and cut; hat and hut.

/ʌ/ and /a:/

It was observed that 9 (14%) subjects failed to discriminate between the two vowel sounds as in much and march.

/i/ and /i:/

Some 11 (18%) subjects confused the two vowel sounds, as in bit and beat; dip and deep.

/ʌ/ and /ə:/

These two vowel sounds were confused by 7 (11%) subjects as in hut and hurt.

/u/ and /u:/

This pair was badly discriminated. It was found out that 21 (34%) subjects confused the two sounds as in full and fool; pull and pool.

5.1.3 Diphthongs

Diphthongs are found to be the most troublesome area to discriminate for most subjects.

/e/ and /ei/

It was observed that 19 (31%) subjects failed to discriminate between /e/ and /ei/ as in get and gate.

/ɔ:/ and /əu/

This pair was the most difficult to discriminate for the subjects in this study. This pair was difficult to discriminate for 39 (63%) subjects as in law and low; born and bone.

/iə/ and /eə/

This pair was confused by 14 (22%) subjects as in hear and hair; deer and dare.

/au/ and /əu/

It was observed that 11 (18%) subjects failed to discriminate between the two diphthongs as in now and know; loud and load.

5.1.4 Words with Closed and Open Syllables

The subjects hardly had any difficulty in discriminating words with closed syllables and open syllables in words such as luck, lucky; sit, city.

5.1.5 Consonant Clusters

From amongst the consonant clusters given in the test only the pair blow and below was found out to be troublesome for 18 (29%) subjects to discriminate.

5.2 Analysis and Results of Production Test

The second test was production test. The 62 subjects were tape-recorded while reading aloud 78 sentences containing most of the minimal pairs used in the discrimination test. The test was divided into parts: consonant sounds, vowels, and diphthongs, words with closed and open syllables and consonant clusters. The sentences in each part were numbered to avoid confusion. Each subject was instructed to record his/her name, section, and age before reading the sentences onto the tape.

Two judges (a linguist and myself) listened to the recording of each subject, and gave each subject a score of one point for each 'correctly' said item. The test was graded out of the total of 83. The phonemic transcription of the relevant words as pronounced by the subjects in the 78 sentences can be shown as follows:

Consonant Sounds

English	as rendered by the subjects
veal /vi:l/	/vil/, /vi:l/, /vel/
five /faiv/	/faif/, /faiv/
safe /seif/	/sef/, /seif/
think /θiŋk/	/tink/, /sink/
thin /θin/	/sin/, /tin/
then /ðen/	/zen/, /sen/
zeal /zi:l/	/zil/, /zel/, /zi:l/
bit /bit/	/bit/
pack /pæk/	/pak/, /pek/
back /bæk/	/bak/

Consonant Sounds

English	as rendered by the subjects
mad /mæd/	/mad/, /mʌd/, /med/
mat /mæt/	/mat/, /met/
mate /meit/	/met/, /mat/
made /meid/	/med/
could /kud/	/kud/
good /gud/	/gud/
joke /$\overset{v}{j}$əuk/	/$\overset{v}{j}$ok/
choke /$\overset{v}{c}$əuk/	/$\overset{v}{c}$ok/, /$\overset{v}{s}$ok/
map /məep/	/map/, /mep/
nap /nəep/	/nap/
law /lɔ:/	/lawu/, /lowu/
raw /rɔ:/	/rawu/, /rowu/
bring /briŋ/	/brin-g/, /brin/, /briŋ/
big /big/	/big/
sing /siŋ/	/sin-g/, /sin/, /siŋ/
sick /sik/	/sik/
wash /wɔ$\overset{v}{s}$/	/wo$\overset{v}{s}$/, /wa$\overset{v}{s}$/
watch /wɔ$\overset{v}{c}$/	/wo$\overset{v}{c}$/, /wa$\overset{v}{c}$/
haste /heist/	/hest/, /hast/
waste /weist/	/west/
wet /wet/	/wet/, /wit/
yet /yet/	/yet/

Vowels and Diphthongs

bell /bel/	/bel/
bill /bil/	/bil/, /bi:l/
lift /lift/	/lift/
left /left/	/left/
letter /letə(r)/	/leter/
latter /læetə(r)/	/later/, /leter/
hat /hæt/	/hat/, /hʌt/
hut /hʌt/	/hʌt/, /hut/
come /kʌm/	/kʌm/, /kom/

English	as reddered by the subjects
calm /ka:m/	/kalm/, /kolm/, /kam/
shut /ʃʌt/	/ʃʌt/, /ʃut/
shot /ʃɔt/	/ʃot/, /ʃʌt/
dip /dip/	/dip/
deep /di:p/	/dip/, /di:p/
pot /pɔt/	/pot/
port /pɔ:(r)t/	/port/
hot /hɔt/	/hot/
hut /hʌt/	/hʌt/, /hut/
hurt /hə:(r)t/	/hart/, /hert/, /ha:rt/
full /ful/	/ful/
fool /fu:l/	/ful/,/fu:l/
get /get/	/get/
gate /geit/	/get/, /gat/
hate /heit/	/het/,/hat/
height /hait/	/hait/, /heyit/
buy /bai/	/bai/
boy /bɔi/	/boi/
bone /bəun/	/bon/
born /bɔ:(r)n/	/born/
hear /hiə(r)/	/hir/, /hi:r/
hair /heə(r)/	/her/, /heyir/
now /nau/	/nau/
know /nəu/	/nau/, /newu/

Closed and open syllable words

eight /eit/	/et/, /eit/
eighty /eiti/	/eti/, /eviti/
sit /sit/	/sit/
city /siti/	/siti/
luck /lʌk/	/lak/, /lʌk/
lucky /lʌki/	/laki/, /lʌki/
difficult /difikəlt/	/dififʌlt/, /difikelt/
difficulty /difikəlti/	/difikʌlti/, /difikelti/

Consonant Clusters

English	as rendered by the subjects
blow /bləu/	/blo/
below /bilәu/	/bilo/
flow /fləu/	/flo/
follow /fɔləu/	/folo/
sport /spɔ:t/	/isport/, /sport/
support /sәpɔ:t/	/saport/, /seport/
disprove /dispru:v/	/disipruv/, /dis-pruv/
disapprove /disәpru:v/	/disiapruv/, /disa-pruv/
strong /strɔŋ/	/istirong/, /stiron-g/
students /studәnts/	/istudentis/, /studentis/
three /θri/	/siri:/, /tri:/
those /ðɔs/	/zos/
health /helθ/	/helz/, /hels/, /helzi/

Based on the transcription of the phonemes as rendered by the subjects, the different parts of the test were analyzed as follows:

5.2.1 Consonant Sounds

As a whole, the English consonant sounds do not give Oromo-speaking students much difficulty. However, the consonant sounds /v/, /ð/, /θ/, /ŋ/ and /$\overset{v}{c}$/ were found to be difficult for the subjects to pronounce.

/v/

Most subjects could produce this consonant sound word initially, as in veal. The trouble was when this sound occurred word finally as in five, save. Thus, 27 (43%) subjects pronounced five as fife, for instance.

/ð/

None of the subjects could say this sound correctly. They either pronounced /ð/ as /z/ or at times as /s/. Thus, for example, then /ðen/ was either pronounced as /zen/ or /sen/.

/θ/

This sound also caused a problem for the subjects. It was either substituted by /s/ or /t/. Thus, 38 (61%) subjects confused /θ/ in thin with /t/ in tin while twenty-nine (47%) confused /θ/ in think with /s/ in sink.

/ŋ/

Forty-tw, (68%) subjects pronounced the /g/ in bring as a separate sound, instead of pronouncing it /ŋ/ as native English speakers do. In some cases, they omitted /g/ thus pronouncing 'sing' as 'sin', for instance.

/$\overset{V}{c}$/

Seven (11%) subjects confused /$\overset{V}{c}$/ with /$\overset{V}{s}$/ and read 'choke' as /$\overset{V}{s}$ok/, for example.

5.2.2 Simple Vowels and Diphthongs

English has many more vowels than Oromo. As a result, Oromo learners of English would use their relatively small number of vowels to 'cover' the English twelve simple vowels and eight diphthongs. The latter are absent categories in Oromo.

Vowels and diphthongs were found to be the most troublesome areas for the subjects to produce. The following vowels and diphthongs caused problems:

/e/ and /æ/

In the test, 28 (45%) subjects failed to make a distinction between /e/ and /æ/. For instance, they pronounced latter and letter indentically. Others substituted the /æ/ in latter by /a/ and pronounced latter as /later/. "The 'schwa' /ə/ — the neutral vowel used in unstressed syllables and weak forms" (Kenworthy 1987:51) was replaced by /e/ in both latter and letter by most subjects.

/æ/ and /ʌ/

Most subjects found it difficult to pronounce the two sounds distinctly. The /æ/ in hat and the /ʌ/ in hut were pronounced identically. This was a problem for 46 (74%) subjects. Others pronounced hat as /hat/. The sound /ʌ/ was also confused with /u/. Thus, 6 (10%) subjects pronounced /hʌt/ as /hut/ although this last confusion could be attributed to the orthography of put.

/i/ and /i:/

The sounds /i/ and /i:/ were also confused by 33 (53%) subjects who read din and deep identically. Both words sounded /din/ as rendered by the subjects.

/ʌ/ and /ə:/

The /ʌ/ in hut was confused with the /ə:/ in hurt. It was observed that 17 (27%) subjects read hurt /hə:t/ as /hʌrt/. Others read /hə:t/ either as /hert/ or /ha:rt/.

/u/ and /u:/

Full and fool were pronounced identically by 29 (47%) subjects. Both words were pronounced /ful/. Some subjects tended to use a vowel close to /u:/ to pronounce fool /fu:l/.

/e/ and /ei/

It was observed that nearly all the subjects confused /e/ with /ei/. Forty-nine (79%) subjects couldn't make a distinction between /e/ and /ei/ when they pronounced get and gate. Others pronounced gate as /gat/.

/ɔ:/ and /əu/

These two sounds were substituted by /o/ or /o:/. Thus, all the subjects pronounced bone /bəun/ as /bon/ and born /bɔ:(r)n/ as either /born/ or /bo:rn/.

/iə/ and /eə/

All the subjects replaced these two diphthongs by monothongs. Hence, here /hiə(r)/ was pronounced either as /hir/ by 39 (63%) or /hi:r/ by others and hair /heə(r)/ as /her/ by 37 (60%) or /heyir/ by others.

/au/ and /əu/

Most subjects had no difficulty in producing /au/ as in now. But the problem was with /əu/ as in know. Thus, 48 (77%) subjects pronounced now and know identically, i.e. /nau/. Others pronounced know as /newu/.

5.2.3 Words with Closed and Open Syllables

No significant problem was observed in the production of words with closed and open syllables.

5.2.4 Consonant Clusters

As a whole consonant clusters with two sequences occurring initially or finally didn't cause much trouble for the subjects. The problem arose when the sequences were three or more. For example, initially strong /strɔŋ/ was pronounced either as /istiron-g/ or /stiron-g/. Medially, disprove /dispru:v/ was pronounced either as /disipruv/ or /dis-pruv/. In Final position, students /studənts/ was pronounced either as /studentis/ or /istudentis/. However, it was observed that 9 (14%) students pronounced health /helθ/ as /helzi/. A clear /l/ was used in place of dental /l̪/ and /θ/, a voiceless fricative, was substituted by an open syllable /-zi/.

5.3 Classification of Errors

5.3.1 Phonemic Errors

The following phonemic errors were observed:

English Phoneme	Wrong Substitution
Consonants:	
/v/ five	/f/ fife
/ð/ then	/z/ zen
/θ/ thin	/t/ tin, /s/ sin
/č/ choke	/š/ shock
Vowels and Diphthongs:	
/æ/ latter	/e/ letter
/ʌ/ shut	/u/ shoot
/ɔ:/ caught	/o/ cot
/i:/ deep	/i/ dip
/u:/fool	/u/ full
/ei/ gate	/e/ get
/éə/ hair	/e/ her
/əu/ know, /au/ now	/au/ now

5.3.2 Phonetic Errors

/ r/ retroflexed	/r/ a flap

5.3.3 Allophonic Errors

[r]- a flapped consonant which may occur intervocalically e.g. very, marry.	a flap /r/
[ɹ]- a post-alveolar frictionless continuant e.g. drive	a flap /r/

[ɹ̥] - a post-fortis consonant devoiced allophone e.g. crane, train — a flap /r/

[d] dental as in width — [d] alveolar

[n] dental as in tenth — [n] alveolar

[l] dental as in health — clear [l]

[l] - a non-velarized allophone, occurs in initial position before vowels and /y/, e.g. leave, early — clear [l]

/ɬ/ - a velarized allophone, occurs before consorants, /w/ and word finally e.g. always, pool. — clear [l]

5.3.4 Distributional Errors

The following distributional errors were observed in the production of English words as pronounced by most subjects:

English Syllable Structures	Wrong Substitution
CCCVC	CCVCVCC/VCCVCVCC
strong	/stirong/, /istirong/
CVCCC	CVCCVC
students	/studentis/
CCV	CVCV
three	/siri:/
CVCC	CVCCV
health	/helzi/

5.4 Rank Order Correlation Coefficient (r_s), Mean Scores and Standard Deviations

Roll No.	Discrimination Test Scores (out of 112) (X)	Rank 1	Production Test Scores (out of 83) (Y)	Rank 2
1	100	47.5	58	37
2	102	36.5	57	42
3	103	29	64	13
4	100	47.5	62	22
5	103	29	66	9.5
6	100	47.5	59	32.5
7	101	42	63	17
8	101	42	60	28.5
9	104	20.5	58	37
10	102	36.5	67	7.5
11	95	61	62	22
12	104	20.5	57	42
13	99	53	56	47
14	103	29	58	37
15	108	3.5	67	7.5
16	96	59.5	54	52
17	106	11.5	63	17
18	92	62	52	57.5
19	96	59.5	57	42
20	98	56.5	59	32.5
21	106	11.5	56	47
22	102	36.5	54	52
23	108	3.5	68	4.5
24	103	29	63	17
25	107	7	69	1.5
26	104	20.5	56	47
27	100	47.5	48	62
28	97	58	50	60
29	106	11.5	65	11
30	103	29	61	25.5

Roll No.	Discrimination Test Scores (Out of 112) (X)	Rank 1	Production Test Scores (Out of 83) (Y)	Rank 2
31	99	53	58	37
32	107	7	69	1.5
33	106	11.5	68	4.5
34	106	11.5	64	13
35	101	42	68	4.5
36	104	20.5	54	52
37	106	11.5	63	17
38	104	20.5	63	17
39	102	36.5	59	32.5
40	99	53	58	37
41	105	15.5	60	28.5
42	98	56.5	56	47
43	103	291	62	52
44	109	1	68	4.5
45	102	36.5	60	28.5
46	104	20.5	64	13
47	107	7	66	9.5
48	103	29	54	52
49	108	3.5	62	22
50	101	42	57	42
51	100	47.5	57	42.
52	104	20.5	59	32.5
53	104	20.5	61	25.5
54	101	42	52	57.5
55	103	29	56	47
56	99	53	53	55.5
57	100	47.5	51	59
58	103	29	54	52
59	105	15.5	60	28.5
60	108	3.5	62	22
61	99	53	49	61
62	102	36.5	53	55.5

$\Sigma X = 6351$ $\Sigma Y = 3689$

$\bar{X} = 102$ (91%) (average score of discrimination test) $\bar{Y} = 60$ (72%) (average score of production test)

$$r_s = 1 - \frac{6\Sigma d^2}{N(N^2-1)}, \quad \Sigma d^2 = 16481.5$$

$$= 1 - \frac{6 \times 16481.5}{62(62)^2-1}$$

$$= 1 - \frac{98889}{238266}$$

$$= 1 - 0.415$$

$$= 0.58 \text{ (rank-order correlation coefficient)}$$

$$S.D_X = \sqrt{\frac{\Sigma(X-\bar{X})^2}{N-1}}, \quad \Sigma(X-\bar{X})^2 = 775$$

$$N-1 = 61$$

$$S.D_X = \sqrt{\frac{775}{61}}$$

$$= \sqrt{12.70}$$

$$= 3.56 \text{ (standard deviation of discrimination test)}$$

$$S.D_Y = \sqrt{\frac{\Sigma(Y-\bar{Y})^2}{N-1}}, \quad (Y-\bar{Y})^2 = 1549$$

$$S.D_Y = \sqrt{\frac{1549}{61}}$$

$$= \sqrt{25.39}$$

$$= 5.04 \text{ (standard deviation of production test)}$$

The rank-order correlation coefficient [$(r_s) = 0.58$] indicates that the two tests (discrimination and production) are positively correlated, i.e. there is a good relation-

ship between the two, in other words, students who are good at discriminating can do well in production and vice versa.

On the other hand, the average scores, 102 (91%) (for discrimination) and 60 (72%) (for production) reveal that the subjects are far better in discrimination than in production. It has been tested and found out that there is a significant difference between the two mean scores. Moreover, the standard deviation (S.D.) 3.56 (for discrimination) and 5.04 (for production) show that there are larger differences amongst the subjects in production than in discrimination.

Chapter Six

6. Recommendations and Conclusions

6.1 Recommendations

Learners need to develop a concern for pronunciation. They must recognize that poor, unintelligible speech will make their attempts at conversing frustrating and unpleasant both for themselves and for their listeners. They must also realize that success in language learning task, involves setting oneself goals, and working hard to achieve them.

Teaching correct pronunciation is not only the task of the teacher. It is very true that the teacher has his own role to play in the process, but success in pronunciation will depend on much effort the learner puts into it. Teachers need to check that their learners are hearing sounds according to the appropriate categories and help them develop new categories if necessary. Sometimes learners will be able to imitate the new sound, but if they can't then the teacher needs to be able to give some hints which may help them to make the new sound. As Kenworthy (1987:2) explains, "Learners need the help of the teacher in establishing a plan for action, in deciding what to concentrate on and when to leave well enough alone." As learning pronunciation is so complex, the teacher must consider what types of exercises and activities will be helpful.

Much is also expected on the part of the learner to accomplish. Primarily, the learner's willingness to take

responsibility for his or her own learning is highly important in pronunciation learning.

Regarding the role of the learner J. Kenworthy writes, "The teacher may be highly skilled at noticing mispronunciations and pointing these out, but if learners take no action and do not try to monitor their own efforts, then the prospects of change or improvement are minimal" (ibid:3).

Most teachers may worry about which pronunciation to teach. It is evident that a teacher teaches the type of pronunciation he/she uses. The important thing is not worrying about which pronunciation to teach. What is more important is the question of intelligibility. Most people may think that a pronunciation which is native like is totally inappropriate, however it must be accepted that if there is occasion to speak with natives, the divergence in pronunciation may lead to communication breakdown. A native like pronunciation may be a goal for particular learners, but for the majority of learners a far more reasonable goal is to be comfortably intelligible. For example, as observed in this study and many other similar studies, most learners tend to substitute /ð/ by /z/. The listener may understand if the speaker says 'ze' for 'th', but this can be understood only if it is followed consistently, i.e. if the same English sound /ð/ is substituted by 'z' by some learners and by 'd' or 's' by others, this is very confusing.

Based on these and the findings of this study, the following recommendations are made:

1. As in other areas of teaching, the first stage in teaching pronunciation is selection. Unless the teacher already knows what his pupils' difficulties are, he has to find them out. The best way is to get the pupils to say words containing the sounds which are to be tested without the teacher himself saying them first.

2. The next step, after selecting the sounds to be worked on, is to prepare sets of minimal pairs. Worksheets can be prepared for the students with the pairs of words beside each other. As the teacher pronounces one of the pair, the learners circle or tick the word they think they heard. It is important to provide immediate feedback, and to give those who chose the wrong word a chance to hear both words again. It is also important to vary the position and surroundings of the target sound. For example, /t/ can occur initially, medially and finally in English words and also with other consonants in clusters, as in tip, pit, trip, and crept, etc. It is necessary that production be given more attention than discrimination in drill exercises for the fact that the subjects were found to be relatively weaker in production than in discrimination.

3. Minimal pair practice can be done with a taperecording of the word pairs, but again immediate feedback should be given and the tape replayed to give another opportunity for the learners to hear the sounds. The advantage of using a tape is that the model will be unchanging -- the tape cannot exaggerate or distort successive models as the teacher can.

4. Another important thing to note is that "no sound is an island." The teacher should avoid demonstrating or asking learners to produce sounds in isolation. Sounds occur in syllables, surrounded by other sounds, so the teacher should give the learners a real word or a non-sense word. In other words, it certainly makes no sense to practice consonant sounds in isolation.

5. It is usually easier for learners to produce a new sound in initial position. Therefore, the teacher should start out with words where the sound is at the beginning of the word, then move on to words where it occurs at the end (which is slightly more difficult), then to middle position, and finally in combination with other sounds.

6. To overcome the difficulty with making diphthongs, the teacher should draw their attention to the movement involved in terms of 'start' and 'finish' positions.

7. In teaching consonant clusters, the teacher will have to decide for himself which clusters to include and which to leave out, and for this the main consideration will be the frequency of occurrence in speech and, to a certain extent, the amount of difficulty for his pupils. It is imperative that the teacher give more attention to final clusters. To a certain extent one is justified in saying that final clusters are more important than initial clusters, because whereas the latter only perform lexical functions, final clusters have grammatical functions as well.

6.2 Conclusions

The main objective of this study was to make a comparative study of the segmental phonemes of English and Oromo and thereby to find out the difficulties Oromo learners of English have in pronouncing certain English sounds.

To this effect, two tests (discrimination and production) were administered to 62 native speakers of Oromo. The subjects, in general, were found to be good at discriminating. The problem was with production in which they were relatively weaker. Thus, the following problems were observed in this study:

Many of the pairs of consonants that caused problems for the subjects were categories which do not exist in the native language.

Several of the pairs of vowels that caused problems differed in that one is a monothong and the other a diphthong. In other cases, monothongs, e.g. /æ, ɔ:/ were found to be troublesome. The reason could be that these vowels are absent categories in the Oromo language.

Consonant clusters with three or more sequences were found to be troublesome. This could also be attributed to the differences in the syllabic structures of the two languages. In some ways final clusters constituted a greater problem than initial clusters for the subjects.

Learning to pronounce a language is a very complex task and, as with any other complex learning task, the learning process can be facilitated, however, if both the learner and the teacher make unreserved efforts. As Heidi Dulay, et al. note, "To be successful, a learner need not have a special inborn talent for learning languages. Learners and teachers simply need to 'do it right'" (Heidi Dulay et al. 1982:3).

Moreover, the teaching of pronunciation should be given due attention from the early stages. In the words of P.Hubbard et al.,

> The teaching of pronunciation is not an optional luxury to be left to advanced level studies of the language at university ... Pronunciation should be an integral part of an English teaching programme from the early stages, just as the teaching of structures and vocabulary (*Peter Hubbard et al. 1985:20*).

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APPENDIX A

Name: _____

Section: S. S.

Sex: L (male, female)

Age: _____

Test I: Discrimination Test

Part I: Consonant Sounds

A. Which one of the following pair of words is said? Tick (✓) the word you've heard in each pair.

1. a) fast / vast
   b) feel / veal
   c) fife / five
   d) safe / save
2. a) den / then
   b) dare / there
   c) close / clothe
   d) sink / think
   e) seal / zeal
   f) thin / tin
3. a) rip / rib
   b) pit / bit
   c) pull / bull
4. a) tip / dip
   b) mat / mad
   c) mate / made
5. a) class / glass
   b) could / good
   c) lock / log
6. a) choice / joice
   d) choke / joke
   c) rich / ridge
7. a) leisure / ledger
   b) lesion / legion
   c) major / measure
8. a) map / nap
   b) mail / nail
   c) marrow / narrow
9. a) raw / law
   b) row / low

c) rean
lean

10. a) bring
big

b) dung
dug

c) bang
bag

11. a) sing
sick

b) spring
spick

c) sting
stick

12. a) sin
sing

b) son
sung

c) sinner
singer

13. a) watch
wash

b) witch
wish

14. a) hag
wag

b) haste
waste

15. a) well
yell

b) wet
yet

Part II: Vowel Sounds

B. Listen carefully and underline the word which you have heard in each pair.

1. a) bell
bill

b) hid
head

c) sit
set

2. a) bed
bad

b) guess
gas

c) lend
land

d) letter
latter

3. a) cat
cut

b) hat
hut

c) mad
mud

4. a) come
calm

b) duck
dark

c) much
march

d) hut
heart

5. a) hut
hot

b) rub
rob

c) shut
shot

d) luck
lock

6. a) bit
beat

b) dip
deep

c) lip
leap

7. a) pot
port

b) cot
caught

c) shot
short

8. a) bud
bird

b) hut
hurt

c) such
search

d) shut
shirt

9. a) look
lu k

b) full
fool

c) pull
pool

Part III: Diphthongs

C. Listen and decide which of the pair of words is said, then underline the word which you have heard.

1. a) debt / date
   b) get / gate
   c) fell / fail
   d) pen / pain

2. a) bay / buy
   b) late / light
   c) hate / height

3. a) buy / boy
   b) bile / boil
   c) vice / voice

4. a) born / bone
   b) hall / hole
   c) lord / load
   d) law / low

5. a) ear / air
   b) fear / fair
   c) hear / hair
   d) deer / dare

6. a) now / know
   b) loud / load
   c) doubt / dote
   d) town / tone

Part IV: Words with Closed and Open Syllables

D. Which one of the following pair of words have you heard: the first or the second? Show the word you have heard in each pair by circling.

1. eight/eighty
2. luck/lucky
3. part/party
4. fun/funny
5. honest/honesty
6. dirt/dirty
7. sit/city
8. difficult/difficulty

Part V: Consonant Clusters

E. Which word is pronounced - the first or the second? Underline the one you have heard in each pair.

1. blow/below
2. flow/follow
3. sport/support
4. disprove/disapprove

APPENDIX B

Test II: Production Test

Instructions: Read the following sentences carefully onto the tape-recorder. Read naturally: use your normal pronunciation. Make a short pause after each sentence. Record your name, section and age before you read the sentences.

Part I: Consonant Sounds

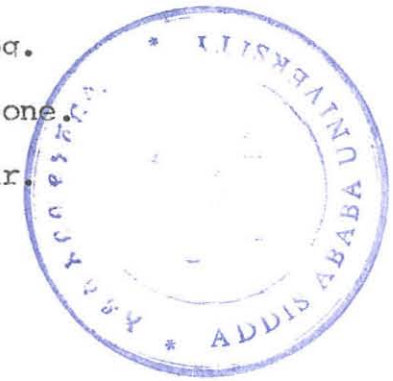
1. He prefers veal to pork.
2. Five of the passengers died in that accident.
3. It is always safe to work hard.
4. I think she is thin.
5. Then we went to the party.
6. She has a strong zeal to learn.
7. You are a bit late.
8. Pack up soon.
9. He gave back the money.
10. The mad cat is sitting on the mat.
11. He is our dorm-mate.
12. This shirt is made in China.
13. I could play foot-ball when I was young.
14. It is good to be respectful.
15. She wants to tell us a joke.
16. If you smoke in this room, we'll choke.
17. They are to draw a map of Africa.
18. We like to take a nap after lunch.
19. Theft is an act against law.

20. This piece of meat is raw.
21. Bring that big bag here.
22. You can't sing if you're sick.
23. Wash your hands before you watch the game.
24. He went off in great haste.
25. Don't waste your words.
26. The ground is wet.
27. She has not come yet.

Part II: Vowels and Diphthongs

1. The bell has gone.
2. Did you receive the bill?
3. Who gave you a lift home?
4. What's wrong with your left hand?
5. Can you write a letter in English?
6. Which one is better, the former or the latter?
7. In Spain girls don't often wear hats.
8. The peasants built a number of huts.
9. Can you come to the party tonight?
10. Mulu is a very calm boy.
11. Did you shut the door?
12. Did you hear the shot?
13. The boys dip their toys into water.
14. The water-well is very deep.
15. The pot is full of water.
16. The port is beautiful.

17. He lives in that hut.
18. He hurt his arm when he fell down.
19. The pail is full of soil.
20. He acted like a fool.
21. They are to get a job.
22. This gate is usually locked.
23. Do you hate to get up early?
24. What is the height of that wall?
25. You must buy another car.
26. The boy kicked the dog.
27. The dog is eating a bone.
28. She was born last year.
29. We can't hear you.
30. Comb your hair.
31. I must go now.
32. Do you know the answer?



Part III: Words with Closed and Open Syllables

1. I have eight birr, but Alem has eighty.
2. It is bad luck to lose. It is lucky to win.
3. Sit down, please. Our city is attractive.
4. The test was difficult. The difficulty was due to lack of clarity.

Part IV: Consonant Clusters

1. The wind blows fast.
2. The temperature is below zero.

3. The river flows through the jungle.
4. Fall follows summer.
5. Football is a popular sport.
6. We support your ideas.
7. Can you disprove this theory?
8. The priest will disapprove of your act.
9. Taye is a strong boxer.
10. A number of students came to the meeting.
11. Three of them have passed the test.
12. Those children are in poor health.

APPENDIX C

Questionnaire

Please read and write the correct information for each number.

1. Full name _____

2. Age _____

3. Sex _____ (male, female)

4. Section _____ (S.S.1, S.S.2, ...)

5. Administrative Region you come from _____
(Shoa, A.A., Bale,...)

6. Your mother tongue (first language) - tick one (✓) inside the box, but if your response is 'others' write the name of your mother tongue in the space provided.

   a) Amharic ☐

   b) Oromo ☐

   c) Tigrigna ☐

   d) Others _____

DECLARATION

I, the undersigned, declare that this thesis is my work and that all sources of material used for thesis have been duly acknowledged.

Name : Italo Beriso

Signature: Italo

Place : Institute of Language Studies, AAU

Date of Submission: June 8, 1988